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The
Falkland Islands

VIEW OVER SHALLOW BAY, WEST FALKLAND

The distant land to the left is Keppel Island (its highest point Mt. Keppel, 2,000 ft.)

The Falkland Islands

by

V. F. BOYSON

With Notes on the Natural History

by

RUPERT VALLENTIN

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V. F. B.

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Go forth my painful Boke,
Thou art no longer mine:
Eche man may on the loke,
The shame or praise is thine.

But seke thou for no praise,
No thanke nor yet reward:
Nor eche man for to please
Haue thou no great regard.

. . . . .

For as to pleasure many
I haue bene euer glad:
Right so to displease any
I wold be loth and sad.

But if thou please the best,
And such as be of skill:
I passe not for the reast,
—Good men, accept good will.

(John Daus, 1560.)

PART I

HISTORY

I

EARLY ADVENTURERS

'Silenus tolde Midas of certaine Ilandes named Europa, Asia, and Libia, which the Ocean Sea circumscribeth and compesseth round about. And that without this world there is a continent . . . which in greatnesse (as hee reported) was infinite and immeasurable.' [1]

All through the ages has been sought a new world. Whether towards a continent 'infinite and immeasurable', or some dream-island, lonely, elusive, warm in the sun, the seekers go forth. Some few to find and look on their Pacific 'silent, upon a peak in Darien', but many more to fail and go down into the dark, with all their hopes unharvested and songs unsung.

In the surge of the South Atlantic, some 250 miles east of the nearest point of Patagonia—with which they are geologically connected by a submarine plateau—between 51° and 53° S. latitude and between 57° 40′ and 61° 25′ W. longitude, lie a group of islands numbering over one hundred, great and small.[2] Storm-whipped, treeless, and forbidding, they saw the centuries go by, waiting until some fine venture of the spirit should bring them within human ken. Twice they were seen—as a desolate coast looming out of the tempest, bringing dismay, not comfort, to the storm-blinded seafarer; seen, and then lost. Then were they found again, and named, and lost; re-found, and re-named—and that not once nor twice. To-day the name of every bluff, and reef, and smallest channel of

[1] Theopompus. (Translated by Abraham Fleming. 1576, Bk. III, p. 37.)

[2] No land survey has yet been carried out. But from the Admiralty chart the total area computed by a surveyor in 1922 equalled 4,618 square miles.

them—though many names are changed or lost—writes out the islands' history.

In the fifteenth century the adventurers of many lands were eagerly astir. Spain and Portugal were each endeavouring to outsail the other, both exceedingly resentful if any other nation attempted to draw near. On land Pierre d'Ailly, in the first decade of the century, far away in the Vosges mountains, was writing his *Imago Mundi*, known to Columbus, while, before the century closed, Martin Behaim of Flanders, Lisbon, and Fayal, draper and geographer—Pigafetta's 'excellent man Martin de Boemia'—in Nuremburg completed his great globe of all the world. This famous work was not free from error. Relying on a fourteenth-century chart, he places on the west coast of Ireland that imaginary island of Prazil or Brasilia which was so hotly, and so vainly, sought for—among others by several ships of Bristol—soon after 1481.

On the whole, the trend of adventurers was towards the south, as though echoing Peter Martyr's cry: 'To the South! To the South! They that seek riches must not go to the cold and frozen north,' unafraid, towards the south they pressed; little recking that the Antarctic would prove more cruel than any Arctic cold.

In June, 1494, was signed the Treaty of Tordesillas, by which Pope Alexander VI attempted to allay the rivalries of Spain and Portugal at sea.[1] On the 30th of May, 1498, Columbus, in his third voyage, touched Venezuela. In 1499 Vicente Yañez Pinzón, and Alonzo de Ojeda, private traders, with the latter of whom was Vespucci on his second voyage, visited

[1] The Pope's line of demarcation provided that all discoveries made to the east of a meridian 100 leagues west of the Azores should belong to Portugal; that those to the eastward of the same meridian, for the same space, should belong to Spain.

Brazil[1] under Spanish flags; and in 1500 Brazil was discovered by Cabral for Portugal in that great fleet which the success of Gama had called forth. Then, in May, 1501, there sailed from Lisbon three ships under some unknown commander—possibly the Portuguese Cristovão Jaques—with the great Florentine Amerigo Vespucci as cosmographer and writer of the expedition. He records, the following April, that the wind drove them SE. until 'the southern pole stood quite 52 degrees above our horizon'[2]; and the storm increased so that they were forced to scud under bare poles before the wind. Fear came upon them, intense cold, and endless wintry nights. Out of the darkness loomed some unknown land along which they ran for about twenty leagues—wholly a rough coast,[3] seen fitfully, lost again in the violence of sea and wind that at last forced them to abandon the voyage and turn north again for Portugal and safety. This, probably, is the first recorded glimpse of the islands now called Falkland Islands; or, possibly, of the Jason islands north-west of the larger isles.

Vespucci returned to Lisbon in 1502. The next ship to sail south in search of the New World was the little *Espoir* of Honfleur, commanded by Binot Paulmier de Gonneville. She left Honfleur in June, 1503 —'le propre jour de Monseigneur S. Jean Baptiste'— having on board her as volunteer Nicole Lefebre, who was to write an account of the expedition. When off

[1] The name Brazil was at first given to all the southern elongation of America.

[2] Valentine Ferdinand, in a notarial act signed August 4, 1504, refers to the expedition as having sailed to 53° S. Varnhagen seems hardly justified in suggesting that Vespucci reached S. Georgia in lat. 54° S.

[3] '. . . terram unam Aprilis secundas vidimus, penes quam viginti circiter leucas navigantes appropiauimus; verum illam omnimodo brutalem et extraneam esse comperimus. . . .' *Novus Orbis Regionum . . .* Basileæ, 1555, p. 229.

the coast of Brazil they were driven out of their course by a furious storm, 'qu'ils craindirent pour leur vie et eurent grande paour[1] . . . qu'enfin épuisés et moult fatigués ils apperchurent un continent en janvier 1504. . . . Dempuis ils furent viuement ébahis de voir une très belle et grande riuière qui étoit à la ressemblanche dichelle d'Orne qui boigne les murs de la ville de Caen.' Probably the land was Brazil; and the river that of San Francisco da Sul. They stayed there some months, finding the natives very friendly.

When they set sail again in July, 1504, they took with them the king's son and his companion. But the return voyage was unfortunate. Lefebre, cartographer and chronicler of the venture, was killed by savages; and when the *Espoir* was near Guernsey she was attacked by two pirates—one Breton, the other English—to save their ship from whom the crew of the *Espoir* flung her on the coast and escaped, losing sixteen men and all their precious maps and documents. When the survivors reached Honfleur they made a sworn declaration before the authorities of their wonderful voyage. This document, lost for so long, was found in 1847 in the Admiralty archives at Rouen.

De Gonneville's account of his adventures sent many ships towards the southern world, sailing from Bristol, London, Plymouth, Honfleur, Rouen, St. Malo. And as they brought back tidings of their discoveries a group of islands to the east of Patagonia began to appear on authoritative charts. Waldseemüller's great map of 1507—the first to bear the name *America*—shows a group of islands marked *Insule 7 delle pulzelle*. These seven islands appear also in the manuscript world map of Glareanus (*c.* 1510), the original of

[1] Margry (Pierre), *Les Navigations françaises et la révolution maritime du xive au xvie siècle*, 1867, p. 160. See also D'Avezac's account of the expedition.

which is in the university library of Munich; and again in the 1513 edition of the map of Ptolomaeus. Schöner's Globe of 1520 shows a group of five islands in mid-ocean, off the coast of Brazil. They are placed in too high a latitude on this, and, indeed, much later maps; but the lands known only by hearsay to the cosmographer and chartographers of old were not always charted with exactitude; and Kohl considers they represent the Falkland Islands.[1] Magellan mentions no islands. But he kept closely to the coast; moreover his heart was set on the discovery of some passage, some antarctic break to the south of the land of the Holy Cross [2]; believing such a channel existed from a map he had seen in the possession of the King of Portugal. His faith was justified. On All Saints' Day, 1520, the *Victoria* came to the strait called by de Acosta 'the greatest wonder in the world' [3]; and Magellan had no mind to spare for islands.

The Spanish maps drawn by Diego Ribero, the Portuguese chart maker who constructed the charts for the Magellan expedition, show a well defined group of seven islands off the coast of Patagonia in 49° lat. S. In the so-called Wolfenbüttel map (between 1527–30), unsigned, and Ribero's magnificent world-map of 1529, the seven islands are named *Yas de Sanson*. In a map of 1534 (*La Carta Universale della Terra Ferma*, published at Venice) drawn by 'two pilots' (probably

[1] Kohl (J. G.), *Die beiden ältesten General-Karten von America*, 1860. E. G. Ravenstein, however, for some unknown reason, declares these islands to be 'the Azores, the Canaries, or an imaginary group to the west of them'. *Martin Behaim, his Life and his Globe*, 1908, p. 36.

[2] The *Mundus Novus* of Vespucci was represented at first in maps as one vast land with an unknown background, called Terra Sanctae Crucis.

[3] For a time it was known as the Bay of All Saints; it was also called the Strait of Martin Behaim; finally, it and the surrounding coast became known by the name of Magalhães.

Fernand Columbus and Diego Ribero) these islands, lying in almost the correct latitude, number 6, but have no name given to them. Sebastian Cabot's Mappemonde shows seven islands off the coast just north of Baya de San Julian named *Yas de San* [*sic*] *sone*. This excellent chart was not published until 1544; but as far back as 1498 a Spanish State Paper has a reference to the *Mapa Mundi* of Cabot, which seems to have been well known to Bristol seamen. Judging from his map Cabot must have had an intimate acquaintance with the coast of South America as far south as the Magellan Strait.[1]

There are certain exact instructions for navigators of the river Plate and southwards down the coast to be found in the Sloane MSS.,[2] entitled: 'A rutier [route] from the river [of Plate] to the Straights. From the Cabo Blanco to Puerto de San Julian is 37 leagues and lieth north and by east and south and by west. This harbour of San Julian have [*sic*] in the entraunce certaine high hills that afar of seeme to be towers. On the south part of the entraunce the channell is in the midst depest, and thou must borrow nerer the northside than the south, and within the harbour there are two islands. Thou maiest come to an anchor hard to them, and they lie in 49 deg. And betwyxt the Cabo Blanco and this Harbour are the Islands of Sanson and they bene 8.'

With regard to this *rutier* Hakluyt has a note to the effect that it was given to Sir John Yorke in the presence of Sebastian Cabot by a French pilot who had made eighteen voyages to Brazil. Yorke, who has been described as the most hated man in England, was at one time Master of the Mint, and one of the

[1] In the instructions given him for his expedition of 1527 the strait is called All Saints. This name is repeated in the map drawn the same year by his friend Robert Thorne.

[2] MS. Sloane 2292, f. 13. Also printed in Hakluyt, iii (1598), p. 724.

founders of the Muscovite Company, of which Cabot was governor in 1555. The Spanish Ambassador, writing to his court from London in 1551, speaks of 'a certain Jehan Ribault, a Frenchman',[1] a good navigator and expert pilot, who was 'working on a marine chart with the pilot Cabot, preparatory to going on an English voyage of discovery.'

It is evident that by 1550 this group of islands off the Patagonian coast was known to Spanish, Portuguese, and English navigators. In Diego Guiterez's map of America published in 1562 the group of islands still appear as *Insule de Sanson.* Gerard Mercator, in his Mappemonde of 1569, gives no name to the islands he places in 49° S. lat. Plancius, the Dutch cosmographer, in his *Orbis Terrarum* of 1592, and his chart of America of 1594, calls them *I. de Acenĉa*[*sic*], imagining, it would seem, that Sanson was an abbreviation of Ascension.

English sailings to the south were become of frequent occurrence. One of the adventurers was 'old William Hawkyns of Plimmouth'—Sir John's father—who, returning from his second voyage to South America in 1532, brought with him a King of Brazil, whom he introduced, at Whitehall, to Henry VIII. It is to be regretted that the Brazilian's impressions were not recorded. Other ships sailed from London, Harwich, and Southampton. Farther and farther south they went, those Englishmen in their small, often ill-found ships. Drake, the hero, with 'browne hayre . . . fayre, and of a cheerful countenance', sailed with Winter round the globe in 1577–80—when he rounded Cape Horn, discovering the 'Elizabethides'.[2] Cavendish

[1] Spanish State Papers, January, 1551.

[2] Fletcher's charts in MS. Sloane 61, the Log of Nuño da Silva, and other contemporary records seem to show that Drake did indeed discover Cape Horn, and recognized that the old *Terra Incognita* was no continent but islands with open sea beyond. See also Nuttall (Z.), *New Light on Drake* (Hakluyt Society), 1914.

went 'about the world' in his famous voyage of 1586–8; with him in the *Desire*, as Master, was Thomas Fuller, of Ipswich, from whose *Rare and Special Notes*[1] the following extract is taken that it may be compared with the Rutier known to Cabot:

'heights of certaine places from the coast of Brazil to the South Seas,

Port Desire	standeth in	47 deg. 50′.
Seales Bay	,,	48 deg. 20′.
Port St. Julian	,,	50 deg.
The White Riuer	,,	50 deg. 30′.
Cape Ioy	,,	52 deg. 40′.
Port Famine within the Streights of Magellan	,,	52 deg. 40′.'

Very insistently presses the question why was not Cabot's *Mappemonde* better known? Surely, if Cavendish or Fuller had known of Cabot's map and chart with the Sanson islands marked so plainly, Fuller would have made some 'Observation' upon them. The *Delight* of Bristol (Andrew Merick, master) seems to have followed the *Desire's* course very closely in 1589–90. W. Magoths wrote the account of the *Delight's* voyage; and he mentions no islands.

The history of the Falkland Islands may be said to begin with Cavendish's second voyage.

[1] Printed in 1598.

THE 'DESIRE' OUTSIDE PORT DESIRE, DECEMBER 1586

A fight with natives and sea-lions

II

1592–1767

From Davis of the *Desire* to Sebald de Weert — Pepys Island — Isles Nouvelles — Port St. Louis — Isla de la Soledad.

In August, 1591, Sir Thomas Cavendish sailed in the galleon *Leicester* for that long voyage southwards that was, for him, to have so tragic an ending. With him, commanding the *Desire*, was John Davis [1] of North-west-passage fame, the discoverer of Davis Strait. The galleon *Leicester* (400 tons) was one of the private great-ships which had been used against the Armada; while in the *Desire* (140 tons) Cavendish had already circumnavigated the globe.

On board the *Desire* with Davis was John Jane, who wrote the account of the expedition, setting forth something of the daily hunger and cold and misery, taken as a matter of course. He set forth, also, that which roused indignation even among the hardened seamen—Cavendish's inhuman treatment of the sick men whom, in May, 1592, he put off the *Leicester* on to the naked Patagonian coast 'in the snow, rain, and cold, when men of good health could scarcely endure it, where they ended their lives in the highest degree of misery'. Then came the leader's desertion—slipping away from the *Black Pinnace* and *Desire*; and subsequently accusing Davis of treachery; though Jane shows how they waited and watched for him at Port Desire for three long months of suffering, with 'hell-dark nights', the men dying of cold and famine

[1] Or Davys, as he signs himself in a letter to Walsingham dated 3 October, 1585. (MS. Lansdowne xlvi, no. 21.) He is not to be confounded with John Davis of Limehouse, the navigator to the East Indies.

'as I think never flesh and blood endured more'. On the 9th of August,

'wee had a sore storme, so that we were constrained to hull,[1] for our sailes were not to indure any force. The 14 wee were driven in among certaine isles never before discovered by any known relation, lying fiftie leagues or better from the Shoare East and Northerly from the Streights: in which place, unlesse it had pleased God of his wonderful mercie to have ceased the winde, wee must of necessitie have perished. But the wind shifting to the east wee directed our course for the Streights . . . the 19 wee passed the first and the second Streights[2] . . .'

After terrible sufferings a remnant of the ship's company, in June, 1593, landed in Ireland; from whence Davis sailed to Padstow in an English fishing-boat. Admiral Burney,[3] on every mention of the Falkland Islands, refers to them as Davis's Southern Islands, insisting that they ought so to be called in justice to Davis.

The next navigator to see these islands saw them—as befitted one who described himself as out for discovery and not for plunder—more placidly, and sufficiently at leisure to describe and name them. Before Davis returned to England, Sir Richard Hawkins—son of Sir John, and grandson of 'old William'—set out from Blackwall in the spring of 1593 in the ship christened *Repentance* by his step-mother, rechristened the *Dainty* by Queen Elizabeth. He came to the Falkland Islands from the north; and, on the 2nd of February, 1594, 'being next of anything in 48°, descryed land',[4] wondering what the land

[1] To lie-to.

[2] Hakluyt, 1598–1600, vol. iii, p. 846. A. H. Markham, *The Voyages and Works of John Davis*, 1880, pp. 107–9.

[3] *Chronological History of Discoveries in the South Sea*, 1803, vol. ii, p. 103.

[4] *The Observations of Sir Richard Hawkins, Knight, in his voiage into the South Sea, Anno Domini, 1593.* 1622. Edited by C. R. D. Bethune for the Hakluyt Society, 1847.

could be, since 'no platt nor sea card which we had made mention of any land which lay in that manner'. He did not land. 'This I have sorrowed for many times since, for that it had likelihood to be an excellent country. . . .' He thought it must have inhabitants, for he saw fires.

'The things we noted principally on the coast are these following: the westernmost poynt of the land, with which we first fell, is the end of the land to the westwardes, as we found afterwards. If a man bring this poynt south-est, it riseth in three mounts, or round hillockes; bringing it more westerly, they shoot themselves all into one, and bringing it easterly, it riseth in two hillocks. This we call poynt Tremountaine. Some twelve or fourteene leagues from the poynt to the eastwardes, fayre by the shore, lyeth a low, flat island of some two leagues long; we named it Fayre Island; for it was all over as greene and smooth, as any meddow in the spring of the yeare. Some three or four leagues easterly from this island is a goodly opening, as of a great river, or an arme of the sea, with a goodly low countrie adjacent. And eight or tenne leagues from this opening, some three leagues from the shore, lyeth a bigge rocke, which at the first wee had thought to be a shippe under all her sayles; but after, as we came neere, it discovered itselfe to be a rocke, which we called *Conditehead*; for that howsoever a man cometh with it, it is like to the condite heads about the cittie of London. The land, for that it was discovered in the raigne of Queene Elizabeth my soveraigne lady and Mistres, and a maiden Queene, and at my cost and adventure, in a perpetuall memory of her chastitie, and remembraunce of my endeavours, I gave it the name of "Hawkins Maidenland."'

He also says he sailed along the coast for sixty leagues.

Commander B. M. Chambers, R.N., examining the question of the identity of Hawkins's Maiden-land with the Falkland Islands,[1] doubts whether they are the same. He admits that Hawkins's direction is right, that the Condite-rock might well be the Eddystone, and the 'goodly opening' Falkland Sound.

[1] *Geographical Journal* (series 1893–1902), vol. xvii, pp. 414–23.

But he cannot identify Fayre Island. Moreover Hawkins could not have seen any fires on the islands, because there were no inhabitants; neither, remarks Chambers, could any one describe the Falkland Islands as a 'goodly low countrie'; and, above all, he says that Hawkins could not have sailed along 60 leagues of coast. Commander Chambers suggests that what Hawkins really saw was Cape Tres Puntas, on the Patagonian coast, in 47° 5′ S. latitude; and the opening he notices was the Desire river. The rock, continues Chambers, might be the Sirius, or Eddystone rock, which was once much higher than it is now. This, though it would agree with Sir Richard's description of the land, contradicts his direction and does not solve the identity of the green island. Chambers reminds us that Sir Richard did not write his *Observations* until some years after the events occurred, and his memory may have become confused. On the other hand it is certain that Hawkins's brother navigators believed he had seen Davis's islands; and for over a century and more,[1] they were known by the name which, if Chambers's explanation be correct, Hawkins gave unwittingly to a stretch of Patagonian coast.

In June, 1598, there sailed out of the channel of Goeree five ships from Rotterdam bound for the Strait of Magellan and the South Seas. On the death of the Admiral, three months later, his ship, the *Geloove* was taken over by Captain Sebald de Weert. Nearly a year was spent in the Magellan Strait. When they were at Port Famine in December 1598, they met with another Dutch navigator—Olivier van Noort[2]; and, for a time, they all lay together near Cape Galant. The 21st of January, 1600, Sebald de Weert sailed

[1] Noüal's chart (*c.* 1720) of the Falkland Islands has for title 'A chart of Hawkins's Maidenland'.

[2] *Description du pénible Voyage faict* . . . par O. du Noort. 1602.

northwards up the Patagonian coast on his homeward voyage. On the morning of the 24th they found themselves to windward of three small islands, not yet marked in maps—'Den 24.smorghens in de ly van haer drie Eylandekens gewaer wordende, die tot noch toe in geene Caerten bekenten zijn gheweest.'[1] They called them the Islands of Sebald de Weert. The islands lay 60 leagues off the mainland, in 50° 4′ latitude S. Penguins were seen, and the Hollanders greatly desired to catch some, but could not, as they had neither sloop nor boat. The Sebald Islands are now known as the Jasons, and the three they saw were most probably Steeple Jason, Flat Jason, and Great Jason, which form the triangle commented on by later navigators. Sebald de Weert's ships went on their way without further investigating the newly discovered islands, and reached the Meuse in July. Sebald met his death at the hands of the King of Kandy on his next voyage in 1603. Levinus Hulsius, in the second volume of his *Shiffarten* (1599), has a map of South America reaching to 60° S. latitude. In about 51° S. he places five islands called I. de Accencam, but it is not easy to say if they represent Hawkins's Maiden-land or the Sebaldines.

The next navigators to see the Sebald de Weert Islands were also Dutch, and formed part of the fleet of the South Company—so called to distinguish it from the great East India Company of Holland formed in 1602. Willem Cornelison Schouten of the *Unity* (*l'Eendracht*), and Jacques le Maire (son of Isaac le Maire, to whom the venture was due), with another ship, the *Horn* of 110 tons—which had on board as supercargo Aris Claesson who wrote the account of the voyage—sailed out of the Texel the 14th of June, 1615. Their aim was to find some

[1] *Historisch ende wijdtloopigh verhael, van 'tghene de vijf Schepen* . . . Amsterdam, 1617, p. 71.

passage into the Pacific other than Magellan's Strait. They reached Port Desire without adventure. On the 18th of January, being in 51° latitude S., they saw the Sebaldines, which they observed to lie in that position and distance from the Strait that de Weert had determined. The 20th, being then in 53° of S. latitude, they observed the great current that runs south-west. On the 12th of February they discovered Le Maire's Straits—though, according to the narrator, the passage should rather have been named after Willem Schouten, ' by whose happy conduct the streights were discovered '.[1] Theodor de Bry published an account of Schouten's voyage in his *Americae* (pars xi),[2] and the Sebaldines are duly marked thereon. For several years afterwards, even on the charts of Pieter Goos in 1666, the whole Falkland archipelago was designated vaguely the Islands of Sebald de Weert.

The islands seem to have been left undisturbed for the next three score years. Then, in 1683–4, there came sailing down from the north upon the islands a ship as inquisitive and acquisitive as any bird of prey. She was not an English ship, though her crew were mostly English ; it might be true to say she had been stolen, the gentler term would be : *a prize*. Strict accuracy would define her as a pirate, courtesy will style her privateer. The leading spirit on board her was William Dampier, Somerset-born, sailor, adventurer, planter, logwood cutter, withal no mean hydrographer,[3] his name is perpetuated in Australasia, hero-fashion ; though he is certainly the villain of

[1] Schouten (W.), *The Relation of a Wonderfull Voiage*, 1619.

[2] Printed in 1619.

[3] He wrote a spirited account of this voyage : *A new voyage round the World* (1679–1709). Bartholomew Sharpe's account of this voyage is in MS. Sloane 46 *a* ; and that of Basil Ringroze in MS. Sloane 3820. The printed account differs in several respects from these manuscripts.

the piece in other episodes. Frankly, he and his comrades were at sea wholly for gain. An exception should be made of the ship's master—William Ambrose Cowley, who, in his Journal,[1] which has never been printed, describes himself as 'the Jackdawe amongst the Rookes'. Once, on his attempt to leave them, his companions placed him under arrest, and would have hanged him, Cowley thinks, 'had they had another man to carry their shipp to the south sea'.

Dampier's reference to the islands is the following:

'January 28th [1684] we made the Isles of Sebald de Weert in 51 deg. 25′ South Latitude, and 57 deg. 28′ Longitude, West from the Lizard of England, the variation 33 deg. 10′. I persuaded Captain Cooke to anchor nere those islands, being sensible of Danger in our Passage thro' the Streights of Magellan, considering, especially, that men aboard the Privateers are not so strictly at command as in other vessels. We came to an Anchor within the two Cables' Length of the Shore of the furthermost of those three Islands, where we found foul rocky Ground, and the Islands barren, and destitute of trees, but some Dildo-bushes growing near the Sea-side. We saw the same day vast shoals of small red Lobsters,[2] no bigger than one's Finger. . . . As we found neither safe anchoring, nor fresh water at those Isles, we made the best of our way towards the Streights of Magellan. . . . I did not see the Sun at Setting or Rising from the Time we left the Isles of Sebald de Weert till we came into the South Seas. . . .'

To Cowley is attributed the discovery of Pepys's Island—that non-existent isle in 47° south latitude which, like Saxembourg Island, and the Auroras, has been searched for in vain so many times. In justice to Cowley it should be pointed out that in his journal he does not once mention the name Pepys, which occurs only in the printed accounts of the voyage. It should further be pointed out that not in any

[1] MS. Sloane 54.

[2] Probably a shrimp (*Munida subrugosus*), much liked by whales and penguins.

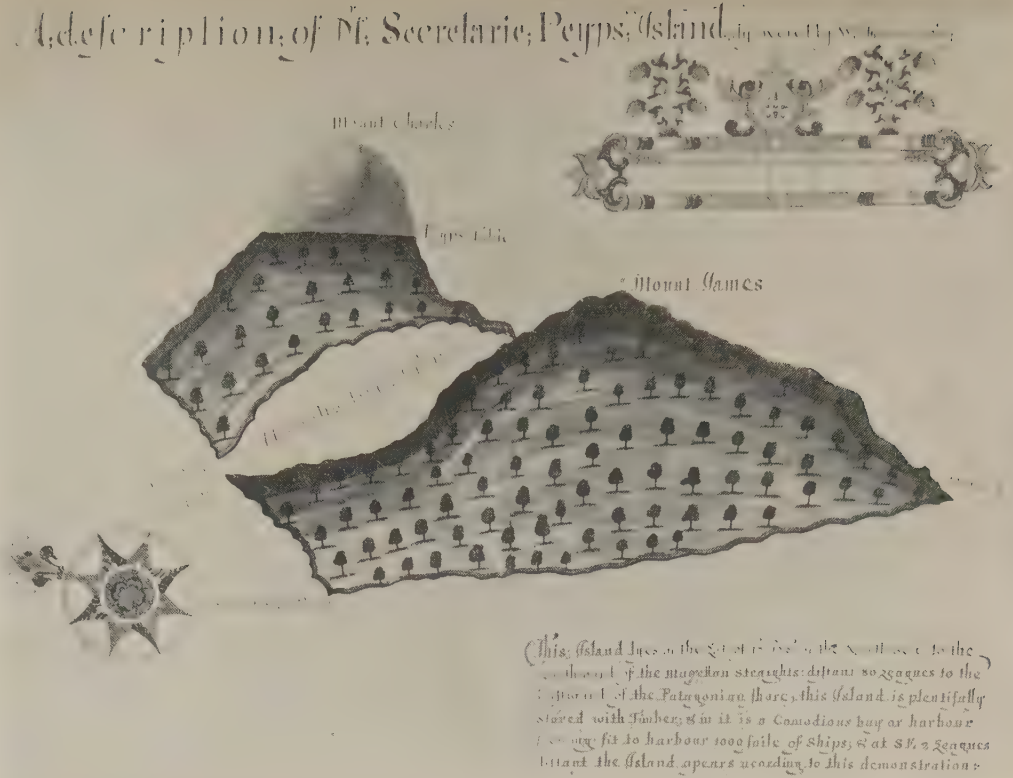
published letter or Naval paper does Pepys himself refer to any island called after him—a compliment that egoistical personage would surely have taken note of.

This is Cowley's description [1] of his discovery :

'This month' (January 1684) 'wee were in the latitude of forty seaven degrees and forty minnetts, where we espyed an island bearing west from us, wee having the wind at east north east, wee bore away for it, it being too late for us to goe on shoare, wee lay by all night. The island seemed very pleasant to the eyes, with many woods, I may as well say the whole land was wood.[2] There being a rock lying above water to the eastward of it where an innumerable company of Fowles, being of the bignesse of a small goose, which fowls would strike at our men as they went aloft : some of them were killed and eat : they seemed to us very good, only tasted somewhat Fishly. I sailed along that island to the southward, and about the south-west side of the island there seemed to me to be a very good place for shipps to ride ; I would have had the boat out to have gone into the harbour, but the wind blew fresh, and they would not agree to go with it. Sailing a little further, keeping the lead, and having six and twenty and seaven and twenty fathoms water until we came to a place where we saw the weeds ride, having the lead again, found but seaven fathoms water, fearing danger went about the schipp there, were then fearefull to stay by the land any longer, it being all rocky ground, but the harbour seemed to be a good place for shipps to ride there, in the Island seeming likewise to have water enough, there seemed to me to be harbour for five hundred saile of shipps, the going in but narrow, and the north side of the entrance shallow water that I could see, but I verily believe that there is water enough for any shipp to goe in on the south side, for there cannot be so great a Lack of water, but must needs scowre a Channell away at the Ebbe Deepe enough for shipping to goe in. I would have had them stood upon a wind all night, but they told me they were not come out to goe upon discovery. Wee saw likewise another island by this that night, which made me thinke them to be

[1] MS. Sloane 54, f. 5 : *The Voyage of William Ambrosia Cowley, Marriner. . . .*

[2] The Falkland Islands are treeless ; but, at a distance, the tussock-grass might be mistaken for woods.



PEPYS ISLAND
(*Sloane MS.* 45, *f.* 69)

the Sibble Dewards . . . by the Latitude and Longitude of them . . .'[1]

In the Sloane MS. No. 45, f. 69, is a map by William Hacke, the cartographer of the seventeenth century, purporting to be Pepys Isle, which is reproduced above. Hacke has described it thus:

'A description of Mr. Secretary Pepyses Island discovered by William Ambrose Cowley. This Island lyes in the Lat. of 47 deg. 40′ S. in the North Sea to the Northward of the Magellan streights; distant 80 leagues to the Eastward of the Patagonian shore, this Island is plentifully stored with Timber,[2] and in it is a comodious bay or harbour seeming fit to harbour 1000 saile of ships, and at S.E. 2 leagues distant the Island apears according to this demonstration.'

Harris, in his Collection of Voyages, also repeats this statement about the 1,000 ships, and says that Captain Cowley bestowed the name of Pepys's Island on it 'in honour of that great Patron of Seamen Samuel Pepys, Esquire, Secretary to his Royal Highness James, Duke of York, when Lord High Admiral of England'.

Were it not for the description of the harbour, and the shape of the map, which might be, roughly, East and West Falkland, with the Sound between them, it might be thought that Cowley really saw two of the Sebaldines.[3] Commodore Byron suggests that Cowley named the island after his return home; but that does not solve the question of the wrong latitude, nor the fact that Dampier does not mention the island. Cowley did not return to England till 1686.

[1] He then steered WSW. 'till we came in the Latitude of 3 and 50 degrees, then I steered away west and made the Land of Terra Fogo. . . .' MS. Sloane 54, fo. 5 b.

[2] As will be seen the map is covered with trees at mathematically regular intervals.

[3] Nearly a century later a Spanish seaman saw an island 89 leagues north of the NE. point of the Malvinas which he thought must be the elusive Pepys Island; he gave it the name of *la Catalana*.

Three years later William and Mary ordered 'generall Reprisalls' against the French King, and, for that purpose, gave letters of Marque to John Strong, commander of the *Welfare* (or *Farewell*) of London, 270 tons, and 38 guns, which sailed from Plymouth on the 1st of November, 1689, for the South Seas. Strong's Journal has never been printed. There are two manuscript copies in the British Museum—Harl. 5101, and Sloane 3295; also (Sloane 86) the 'Observations' of Richard Simson, who was on the *Welfare*—or *Farwell*, as he calls it. He writes in a lighter, more discursive vein than does his commander, and thus describes their passage through the Sound, and the first view of the islands.

'As for Hawkins' Land 'tis parted by a great Sound, which we past through. The Designe of our Voyage . . . being part to make Discovereyes, oblidged our Comander to stay some time at the place. The Sound in severall places was so full of Weeds, that the ship could hardly make her way; and if one might judge by appearance, there it was, we sayled through a Medow then an Arm of the Sea, and notwithstanding our Officers Courage in the Attempt and Skill in the Management we grazed (as they call it) the ship drawing 3 fathom water, we had just so much to cary us, and the Chañel being hard gravel, gave a new but melancholy diversion to the Ear, our sayling being for some time extreemly rugged and attended with a rattling, like that of a hackney coach in the Streets of London. The Inhabitants, such as they were, were exceedingly numerous. The Pengwins (a Bird larger than a Duck) gave us the first reception. Being mustered in infinet numbers on a rock, upon some of our men's landing [1] . . . they stood, viewed and seemed to salute them with a greate many gracefull bows, with the same gestures equally expressing their Curiosity and good breeding. As for other creatures there were Eagles, Hawkes, which tho' they had long wings suffered themselves to be taken up by our men. . . . The Island if it were not quite destitute of Wood would make a Noble plantation; It bears an English name, a good Harbage, and a great variety of land and Sea Fowl.'

[1] This is the first recorded landing on the Falkland Islands.

Simson was the first to suggest colonization of the islands. His manuscript concludes with an interesting account of how they returned home 'North about', and of the prizes they captured. The voyage lasted twenty-three months; and by it the owners lost £12,000.

Extracts from Captain Strong's log-book[1]: Monday, January 27 [1689–90], they sight Hawkins Land:

'this land doth show like a great many Islands it is a large Land and lyeth E. and W. nearest, there is severall keys that lye along shore. Wee sent our boat on Shoar to one of them and they brought on board abundance of Pengwins and other fowl and Seals and at three in the Afternoon wee stood down along Shoar and steered E.B.N. and at eight at night wee see the Land run to the Eastward as farr as wee could discerne Lattd. 51°: 03.

. . . Tuesday 28th this morning at four aclock wee see a rock that lyeth off the main island about four or five leagues, it makes like a Sail. Wee tacked and stood to the Wt ward and at six aclock wee did stand through a Sound that lyes about twenty leagues from the Wt termost Land that wee saw but what length the Island is I doe not know, the Sound lyeth S. and N. nearest, there is twenty four fathom water three leagues wide and shoulds gradually till you come close on board of the W^t^ end. . . . At 8 at night wee came to an Anchor in fourteen fathom water about six or seaven leagues within, the wind was W.S.W.

Wednesday this morning wee weighed and stood into an Harbour on the Wt side and there came to an Anchor and sent our boats on Shoar for fresh water and wee did kill abundance of Geese and ducks, but as for wood there is none. 30th Thursday wee rid at Anchor in this harbour filling of fresh water, there is a great many good Harbours in this Sound. . . .

Jan. 31 Fryday this morning at five a clock wee weighed from this Harbour the wind at W.S.W. Wee sent our long boat a head of the ship to sound before us Wee kept the Wt side on board all the way till you come about twelve leagues up and then you take one small Island on the Starboard side of you,

[1] MS. Harl. 5101.

at eight a clock wee came to an Anchor in nine fathom water by reason it was night.

Feb. ye 1st. Saturday this morning at 4 a clock wee weighed and sent our long boat before to sound and at ten wee gott clear of the Sound, and at twelve wee got the Wt Cape which wee gave the name of Cape Farewell and it bore N.N.E. distance about five leagues, at 7 at night the Wt most Land wee see bore W.N.W., distance six Leagues, the wind at W.S.W. this Land lyes nearest E. and W., but as for the length of it I do not know, from the W^t most end that wee see to Fawkland Sound [1] as I named it, is twenty four leagues, this Sound is about Seaventeene leagues long, the first entrance lyes S.B.E., seaven and eight fathom three or four leagues over and afterwards S.B.W.'

The *Welfare* sailed from Hawkins Land the following day, and reached the Strait of Magellan on the 12th. Strong describes the 'Indians' there as 'poor naked sort of People'. As to the country: 'there is noe want of water and wood, nor cold and snow, these are the Countrys comodity.'

Though Halley, in the Pink *Paramore*, was in the South Atlantic in 1700 he kept too far to the east to touch at Hawkins's Maiden-land—as the islands are still called in Dalrymple's chart of 1769 describing the voyages of Halley in 1700 and Lozier Bouvet in 1738. Dampier was again at the Falkland Islands in 1703 on the *St. George*, with William Funnell as master. Funnell has left an account of the voyage [2] which does not redound to Dampier's credit.

But, with few exceptions, the ships which came about the Falkland Islands with increasing frequency from 1698–1712 were French. For the past two centuries French sailors had been carrying on a quiet trade with South America. It was no poet's dream

[1] The same year the name *Falkland* was given to the first regular man-of-war ever built in North America.

[2] Funnell (William), *A voyage round the World in the Years 1703 and 1704*. London, 1707.

but national hope reaching out to fulfilment that Ronsard had in mind when he wrote his sonnet to Henri III :

> L'Europe est trop petite, et l'Asie et l'Afrique
> Pour toy qui te verras de tout le monde Roy . . .
> Comme desja ton sceptre abaisse dessous soy
> L'Arctique, il puisse vn jour gouuerner l'Antarctique.

So backwards and forwards, unacclaimed, scarcely noticed, sailed the French sea-farers, mainly from St. Malo. When they came to know the islands they called them after their seaport—*îles Malouines*. This, later, became the Spanish *Maluinas*, or *Malvinas*; and survived in the nineteenth century, especially among American whaling captains, in the word *maloon*. The name Malouines occurs, probably for the first time in a printed map, in Delisle's *Carte d'Amérique dressée pour l'usage du Roy* published in Paris in 1722. Besides the term *Malouines* given generally to the islands, the names of two sea-captains of St. Malo survive to-day in the islands Beauchêne and Anican.

Jacques Gouin de Beauchêne[1] set sail in 1698 on the *Phélypeaux*, with the *Maurepas* (Captain Terville), and the *St. Louis*, intending to go round Cape Horn. Villefort, an officer on board the *Phélypeaux*, wrote an account of the expedition. The original of Beauchêne's journal is in the Bibliothèque Nationale, and has never been printed.[2] Villefort says that on the 19th of January, 1701, in 52° 50′ latitude S., they discovered an island not marked in the charts, about 60 leagues east of Tierra del Fuego; and they called it Île Beauchêne. The next day they were at the Falkland Islands (he calls them the Isles of Sebald de Weert), and the *St. Louis* anchored in latitude 51° 32′, on the

[1] Manet (F. G. P. B.), *Biographie des Malouins célèbres*. Saint-Malo, 1824, p. 68.

[2] Dahlgren (E. W.), *Les Relations commerciales et maritimes entre la France et . . . l'océan Pacifique*. Paris, 1909, p. 132, *note*.

east, for fresh water. The landing party found celery, geese, but no wood, which they needed most of all. Here is the second recorded landing on the islands. Frézier,[1] in his map, marks the spot on E. Falkland where the *St. Louis* watered, calling it after the ship. It is not the same place as the Baie St. Louis [2] so named of de Bougainville in 1764; which has also been known as Baie de Luxembourg, Baie d'Acaron,[3] Baie Française, Berkeley Sound, Bahía de la Soledad, and, now again, Berkeley Sound.

In 1703 there left St. Malo four ships fitted out by the Malouin Noel Danycan de Lépine; two of the captains—Fouquet and Perée—were also St. Malo men. The ships were the *St. Pierre*, *St. Charles*, *Murinet*, and the *Royal-Jacques*. They were bound for the South Seas, and had on board four Jesuit missionaries, one of whom, Père Nyel, wrote an account of the voyage.[4] New islands were discovered and described as lying to the south-east of the isles of Sebald de Weert [Falkland Islands], though neither their number nor their shape was ascertained. They were seen the 14th of October, 1705, and were named by Perée and Fouquet Îles de Danycan, in honour of the ship's owner. A map printed in 1726,[5] representing 'les Nouvelles isles d'Anycan et de Beauchêne' shows three large islands in 51° called Isles de Sebald, with the Isle de Beauchêne, correctly placed, and a group of some ten little islands between 52° and 52° 15′—the Îles Danycan.

Another ship from St. Malo, *Notre Dame de l'Assomp-*

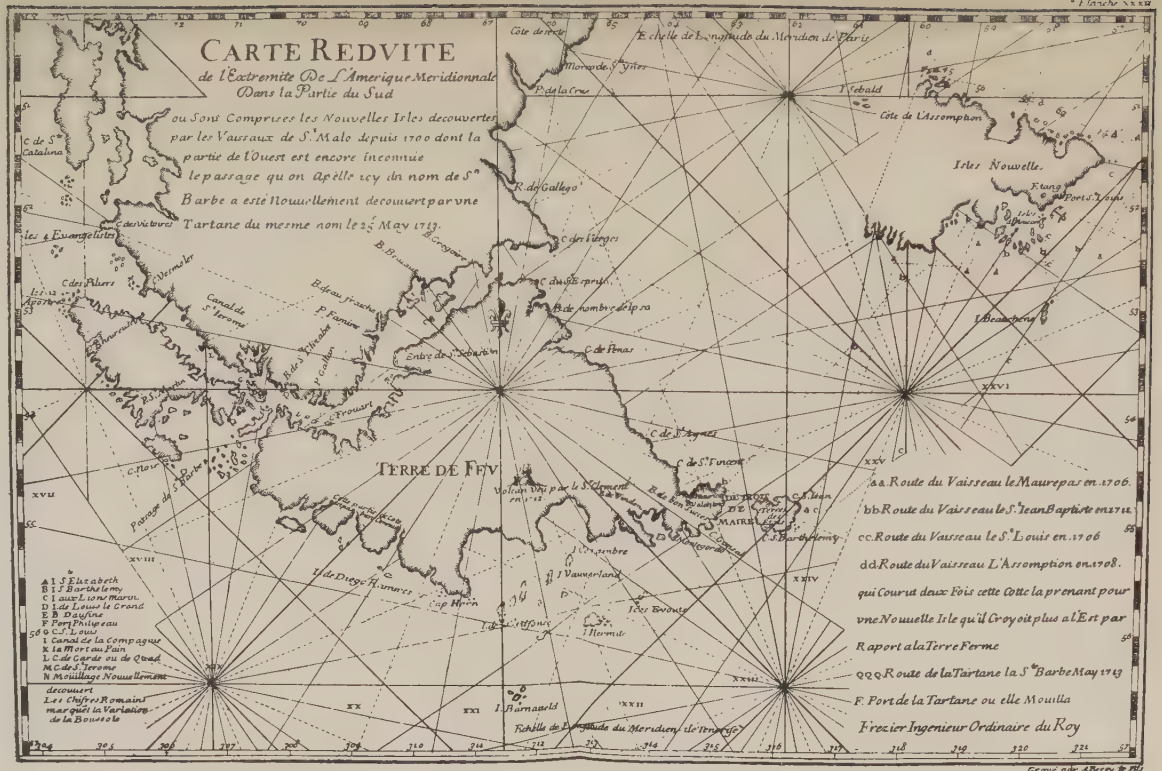
[1] Frézier (Amadée François), *Relation du voyage de la mer du Sud . . . fait pendant les années 1712, 1713, et 1714.* Paris, 1716, Plate xxxii.

[2] Which is in Latitude 51° 4′.

[3] Add. MS. 38076, E. 12, has a plan 'de la Baye d'Acaron' with the 'Habitation Fort St.-Louis'.

[4] Lettre du Père Nyel, Missionaire de la Compagnie de Jésus, au R. Père de la Chaize . . . 20 May, 1709.

[5] *Lettres Édifiantes et curieuses*, xvii Recueil, 1726.


CARTE REDVITE
de l'Extremité De L'Amerique Meridionnale
Dans la Partie du Sud
ou Sont Compriſes les Nouvelles Iſles decouvertes
par les Vaiſſeaux de S.t Malo depuis 1700 dont la
partie de l'Ouest est encore inconnue
le passage qu on Apelle icy du nom de S.t
Barbe a esté Nouvellement decouvert par une
Tartane du mesme nom le 25 May 1713.
TERRE DE FEU
Volcan vû par le S.t Clement en 1713
Iſles Nouvelle.
Côte de l'Assomption
Côte de Terre
Echelle de Longitude du Meridien de Paris
Echelle de Longitude du Meridien de Tenerife
aa Route du Vaisseau le Maurepas en 1706.
bb Route du Vaisseau le S.t Jean Baptiste en 1711.
cc Route du Vaisseau le S.t Louis en 1706
dd Route du Vaisseau L'Assomption en 1708.
qui Courut deux Fois cette Coste la prenant pour
une Nouuelle Isle qu'il Croyoit plus a l'Est par
Raport a la Terre Ferme
QQQ Route de la Tartane la S.te Barbe May 1713
F. Port de la Tartane ou elle Mouilla
Frezier Ingenieur Ordinaire du Roy
Gravé par Aubert le Fils

FRÉZIER'S MAP OF 1716

Showing the tracks of the ships from St. Malo about the Falkland Islands or Îles Malouines

tion, commanded by Captain Alain Porée,[1] sailed along the north of the Falklands in July, 1708. Porée thought it undiscovered country and named it after his ship—l'Assomption. In the Christmas of the same year two English privateers—the *Duke* and *Duchess* of Bristol, commanded by Captain Woodes Rogers—were off the islands, which Woodes Rogers is the first to call by their present name Falkland, giving to the islands the name Strong gave to the Sound between them.

'1708, Dec. 23. At ten this morning we saw land,' writes Woodes Rogers,[2] 'bearing S.S.E. distant 9 Leagues. It appeared first in three, afterwards in several more Islands . . . a long Tract of Land. We saw most of that which appear'd at first to be Islands, join with the low Lands. The Wind being westerly and blowing fresh we could not weather it; but was forced to bear away and run along shore from 3 to 4 leagues distance. It lay as near as we could guess E.N.E. and W.S.W. This is Falkland's Land, describ'd in few Draughts, and none lay it down right, though the Latitude agrees pretty well. The middle of it lies in Lat. 51 deg. 11′ S., and I make the longitude of it to be 61 deg. 54′ West from London. The two Islands extend about 2 degrees in Length, as near as I could judge by what I saw.

Dec. 24. Between 2 and 3 a'clock yesterday in the afternoon we ran by a high round large white remarkable Rock, which appeared by itself near 3 leagues without the Land; which is not unlike Portland, but not so high, and the Rock like that call'd the Fastneste to the westward of Cape Clear in Ireland.... All this land appear'd with gentle Descents from Hill to Hill, and seem'd to be good Ground with Woods and Harbours. At 3 a clock we made sail, steering S.E. Lat. 52 deg. S.

Dec. 25. Yesterday Noon we saw the Land again and find it to trim away southerly from the White Rock. A strong gale of wind at S.W. At six a clock in the evening we lost sight of the Land but could not come near enough to see if it was inhabited.'

[1] Cunat (Charles), *Saint Malo illustré par ses marins.* Rennes, 1852, pp. 153–70.

[2] *Voyage round the World 1708–1711, in the Ships* Duke *and* Dutchess *of Bristol.* 1712.

Continuing, Woodes Rogers says they saw a sail and gave chase. The ship they chased was no other than Porée's *Notre Dame de l'Assomption*, which had come back out of curiosity to find out more about the new-found land. Fog, and approaching night, made the *Duke* and *Duchess* lose their prey.

In 1711, early in the year, Jean Doublet, of Honfleur, ship the *St. Jean Baptiste*, coming up from le Maire strait cruised about the south coast of the Falklands. Seeing the entrance to Falkland Sound he intended to explore it, but noticing a group of low islands almost level with the water (the Anicans) thought it wiser not to venture farther. Doublet's journal has never been printed; the original is in the archives of St. Servan.[1] It seems that the Falkland Islands had a great attraction for him. In his 'Relation de la nouvelle découverte des Îles Cabaldes, et à quoy elles pourroient estre utiles' comes the first serious suggestion of their colonization. In the same year Brignon, of St. Malo, in *l'Incarnation*, 'discovers', in unusually fine weather, the Sebaldines, on his way down from Rio de Janeiro.

To Amadée François Frézier, Ingénieur du Roy at St. Malo, we are indebted for the clearest contemporary account of these French navigators. He knew most of them and probably read their log books—certainly he saw the Journal of Captain Jean Baptiste Le Gobien, second in command of *Notre Dame de l'Assomption*. Moreover his map conveys a clear conception of the ideas held by the French concerning les Îles Malouines. A photograph of Frézier's map is given. He himself left St. Malo in November, 1711, for a three years' voyage, returning in 1714. His ships were the *St. Joseph* and the *Marie*, the captains

[1] Dahlgren (E. W.), *Les Relations commerciales et maritimes entre a France et les côtes de l'Océan Pacifique. . . .* Paris, 1909, &c., p. 550.

of which were both St. Malo men. His careful, well-written account of the voyage was published in 1716. In his map it will be noticed that the northern part of the Falklands is as named by Alain Porée in 1708, while the southern mass is designated vaguely Îles Nouvelles, the Malouins catching sight of the various headlands, and imagining each was an island. L. G. de la Barbinais, who left for his voyage round the world in 1714—the first French expedition to do so—does not mention the Malouines. Yet another name was bestowed on the Falkland Islands by the Dutch commander Jacob Roggeween, who sailed from Amsterdam the 16th of July, 1721, with three ships—the *Eagle*, *Tienhoven*, and *African Galley*—on a voyage of discovery. They came to the islands in December, 1721, and, in the German account of his expedition,[1] Roggeween gives a very highly coloured picture of his new discovery. They first saw the north-eastern extremity of the islands, the first visible points of which they named Cape Rosenthal, after the captain of the *African Galley*; the uttermost eastern point was called New Year Cape, being discovered on that day. Roggeween called the whole island *Belgia Australis*, because, when it became inhabited, those who dwelt on it would be at the Antipodes of the Low Countries. The land is described as being very beautiful and fertile.

'It was chequered with mountains and valleys, all of which were clothed with very fine straight trees. The verdure of the meadows and the freshness of the woods afforded a most delightful prospect, insomuch that all the ships' companies agreed, that, if they had landed, they should have found excellent fruits. But the Commodore would not allow them to land, for fear of losing time . . . the Commodore regretted excessively his not laying hold of that fair opportunity of spend-

[1] Roggeween (Jacob), *Reise nach den Südländern*, 1722. (Schwabe's *Hist. der Reisen, etc.*, Band 18. Leipzig, 1747.)

ing a few days there, which, perhaps, might have produced the fixing a colony on that island.'[1]

On the outbreak of war with Spain Anson (afterwards Admiral of the Fleet) was sent out with a squadron of six vessels with instructions to damage Spanish colonies and commerce as much as possible. He sailed in September, 1740. His stores were bad, his ships wofully undermanned—old pensioners from Greenwich Hospital being sent as part of his crew. A measure which Beatson rightly characterizes as 'fraught with the grossest cruelty and ignorance'.[2] One of Anson's ships, the *Wager*—an old East Indiaman turned into a man-of-war—was wrecked to the north of the western part of the Strait of Magellan. The account of the sufferings of the few survivors was written by John Byron, a midshipman on her, also by two of the crew. Anson is remarkable for the brilliant young officers who began their career under him—Byron, Keppel, Saunders, all won fame subsequently, and, incidentally, all three were connected with the Falkland Islands. Byron afterwards took formal possession of them; while after Keppel and Saunders are named those two islands of the group. Anson returned to Spithead in June 1744, with a brilliant reputation and £500,000 of Spanish treasure, but with only one ship and a poor remnant of 200 men—a pitiful residue compared with the numbers who had gone forth. His voyage greatly increased the knowledge of geography and navigation. Though he did not visit the Falkland Islands, he strongly urged their claims on the Admiralty. Anson's safe return and the report he gave of his adventures are referred to by Dyer in that singularly

[1] The first account was written in French, by the sergeant-major of the troops on Roggeween's fleet, and printed at the Hague in 1739.

[2] *Naval and Military Memoirs*, 1790, i. 55.

uninspired poem *The Fleece*, where mention is made of the perils

> Anson, with steady undespairing breast
> Endured,

also to the Antarctic circle, and the lack of

> Safe mole or harbour, till on Falkland's Isle
> The standard of Britannia shall arise.

Certainly a strong desire appeared on the part of the Admiralty to investigate more fully Falkland's Island and the non-existent Pepys Island. But being fully alive to the extreme Spanish sensitiveness on the subject of marine discovery, they went to work most carefully. On the 24th of April, 1749, the Duke of Bedford wrote to Sir Benjamin Keene, the British Ambassador—in order that there might be no umbrage given at Madrid—explaining that the Admiralty intended to send sloops to undertake the 'full discovery of the Pepys's and Falkland Islands . . . there is no intention of making any settlement in either of these islands'.[1] Keene wrote back that he had been to see the Spanish Minister, who viewed with disfavour the preparations 'to send the Frigates into the American Seas'. 'No one', remarked His Excellency, 'could be a stranger to the rise and Intent of such expedition, since it was so fully explained in the printed Relation of Lord Anson's voyage.' 'Whatever I could say', continues Keene plaintively, 'did not seem to render this more palatable.'

Stripped of all diplomatic verbiage the interview must have been much as follows:

'We would like', said Keene, 'to go on a little voyage of discovery. We will only look, we promise not to touch.'

'That is absurd', retorted His Excellency: 'if

[1] Add. MS. 35503, f. 188 et seq.

you look you will want to touch. Why should you pretend to want to discover the islands when we discovered them long ago? If you merely wish to know what they are like we can tell you. We have in our Offices Books with very ample dimensions, properties, etc., of these islands; our people have lived in them. We would show you the papers describing the islands, only they are at Madrid.'

His Excellency would seem to have been slightly mistaken. The earliest document in the *Archivo de Indias* relating to the Falklands is dated 1758; in which year the minister Arriaga wrote demanding details of the islands from Francisco Horozco, who had, in 1746, explored the coast of Patagonia. Horozco's reply is dated 16 October, 1759: he does not know the islands.

The British Ambassador then went to see the Marqués de la Ensenada on the subject. He was annoyed; indeed he may be described as shocked at the suggested outrage on a nation's privacy, against which he protested strongly. He then shut himself up in his office to prepare reports for his Government at Santa Fé.

Spanish nervousness being so acute the English Board of Admiralty chivalrously abandoned all thought of the proposed expedition—for the present. So another nation took possession.

In the year 1755 there was living in London, in the unassuming position of secretary to the French embassy, a young man of six and twenty or so, named Louis Antoine de Bougainville. Young as he was he had three years previously been made a Fellow of the Royal Society for a treatise on the Integral Calculus. Much of his work consisted in copying reports and deciphering dispatches dealing with Canada; thus he learned to love the far-off colony of France. When, in the long, bitter struggle between Great Britain and

France for Canada, Montcalm, in 1756, assumed command of the French troops there, Bougainville flung himself into the conflict, became aide-de-camp to Montcalm, and was in the thick of the struggle for Quebec. Montcalm dead, Quebec lost—and Quebec meant Canada—there came to Bougainville the hope of founding a French colony to replace the lost Acadia, in some place where no British would annoy. The lonely Malouines beckoned to him as a spot where the wicked would cease from troubling and the weary might be at rest.

He prepared an expedition which, from the care he bestowed on it, deserved to prosper. All manner of stores, seeds, and plants, and cattle—the descendants of which are in the islands to-day—and the very colonists, were taken to people the land. These last were three Acadian families who had sought refuge at St. Malo a few years previously. Commanding his ships he had two Malouins, both well-known navigators. Nicolas-Pierre Guyot, sieur Duclos, commanded the *Aigle*, and Chênard de la Giraudaix the *Sphinx*.[1] They left St. Malo on the 8th of September, 1763. One of the three Acadian families proving troublesome was put ashore—at its own request—near St. Cas, and the voyage proceeded harmoniously. The following extracts are from Pernety's Journal[2]; and describe their arrival at the Malouines:

'Le 31 January [1764], nous appercûmes une terre à l'est, et en approchant nous crûmes voir des Isles . . . disposées en triangle, comme l'on dit que le sont celles que l'on nomme Sebaldes. . . . En cotoyant cette terre nous nous trouvâmes bientot à une demie lieue de deux Isles plates qui, au premier aspect, nous parurent couvertes de taillis, mais ce n'etait qu'un grand jonc à feuilles plates et larges, connu sous le nom de glayeux. . . . Le même jour . . . nous découvrîmes un îlot qui

[1] Manet (F. G. P. B.), *Biographie des Malouins célèbres*, 1824, p. 10.

[2] Pernety (A. J.), *Histoire d'un Voyage aux Isles Malouines fait en 1763 et 1764*. Paris, 1770.

presentoit à peu près la figure de celui sur lequel est bâti le fort de la Conchée auprès de Saint-Malo ; M. de Bougainville le nomma la tour de Bissy.'

On the 1st of February they were surprised by a calm, and the tide nearly threw them on some rocks which the sailors named Charpentiers. On Thursday, the 2nd of February, they saw, for the first time

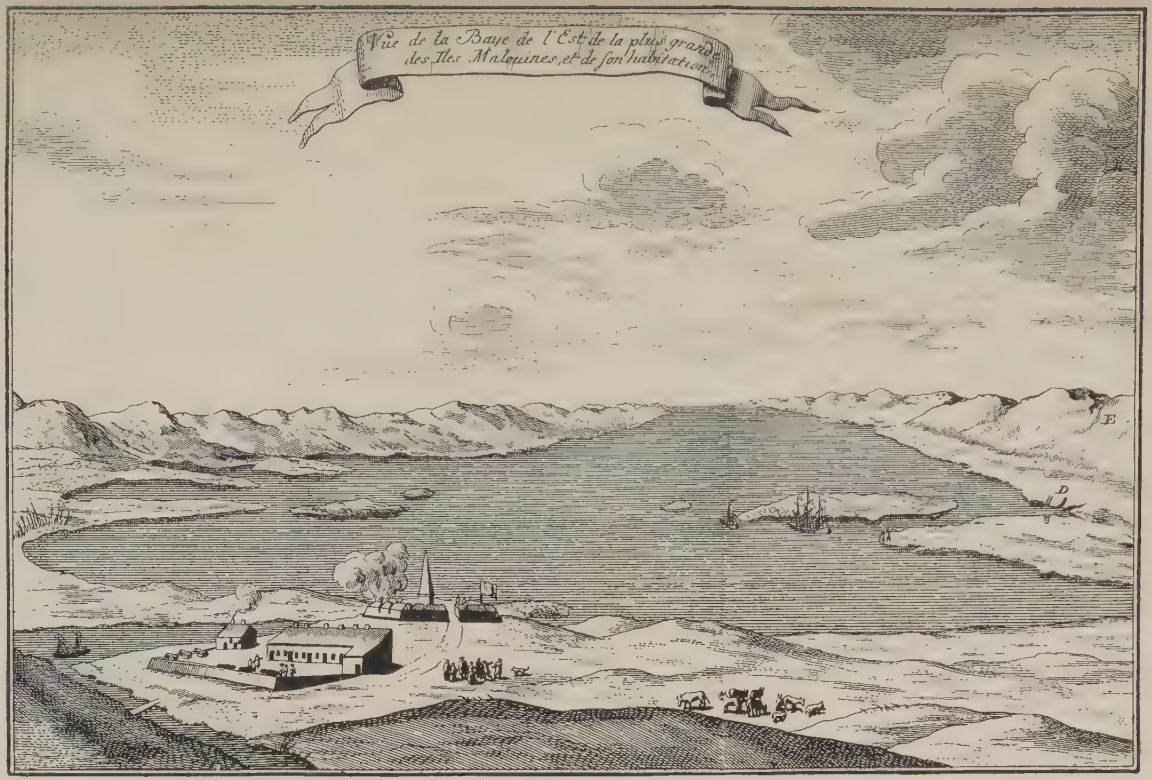
'la grande baye des Isles Malouines [Berkeley Sound] qui peut contenir au moins mille vaisseaux, on y voit à l'ouest des Isles et Islots, à l'abri de tous vents, et où les vaisseaux sont plus en sûreté que dans le port même de Brest . . . quelques jours après MM. Duclos et Chénard montèrent sur le sommet d'une espèce de montagne au sud . . . plantèrent tout au haut, entre deux rochers, une croix de bois environ trois pieds de hauteur, et donnèrent à cette hauteur le nom de Montagne de la Croix.'

They established themselves to the west of Berkeley Sound on the 17th February. During one of the early days of their colonization Bougainville set on fire the small island known as Penguin Island, when over 200 unfortunate penguins were burnt. Afterwards the isle was called Burnt Island. On the 21st they laid the first stone of the obelisk they intended raising within the fort. Beneath this foundation stone was laid a silver plate on which was graven :

'Établissement des îles Malouines, situées au 51° 30′ de lat. australe, et 61 deg. 50′ de longitude occidentale du méridien de Paris ; par la frégate l'*Aigle* capitaine P. Duclos-Guyot, capitaine de brûlot, et la corvette le *Sphinx*, capitaine F. Chênard de la Giraudais, lieutenant de frégate, armées par Louis Antoine de Bougainville, colonel d'Infanterie, capitaine de vaisseau, chef de l'expédition, etc., sous le ministre d'E. de Choiseul, duc de Stainville, en février, 1764.'

With the motto : *Conamur tenues grandia.*

Near the monument was placed a sealed bottle bearing the names of officers and men forming the expedition—most of them were from St. Malo. On



THE FIRST SETTLEMENT IN THE FALKLAND ISLANDS

Bougainville's French colony on the shores of Baie Saint-Louis (Berkeley Sound) in 1764

the two sides of the obelisk were wooden medallions; on one was carved the bust of Louis XV, with Virgil's line *Tibi serviat ultima Thule*[1]; on the other sides the arms of France. The ceremony of taking formal possession of the islands for France took place on the 5th of April, and was followed by a solemn *Te Deum*, salutes from the cannon, and the cry of *Vive le roi!* many times repeated. On the 8th Bougainville left his colonists—including two little Acadians, Jean, aged 3½ years and Sophie one year—under the command of his cousin G. de Bougainville-Nerville, and reached St. Malo again the following June.

At the time the French were settling into their new quarters at Fort St. Louis on East Falkland the British Government was preparing to send out vessels on a voyage of discovery. The command of the expedition was given to Commodore John Byron, who as midshipman had sailed in Anson's ship the *Wager*. His instructions ran: 'And whereas His Majesty's islands called Pepys Island and Falkland Islands have never yet been so sufficiently surveyed as that accurate judgment may be made of their coasts and products . . . His Majesty . . . has thought fit that it should now be undertaken.' Byron commanded the *Dolphin*, 24 guns, one of the first ships to be sheathed with copper; with him was the sloop *Tamar*, 16 guns, Captain Patrick Mouat. In order to avoid rousing Spanish suspicion the expedition was supposed to be bound for the China Seas; and it was not until they were far from land that Byron made known to the crew their destination. Byron sighted the Falkland Islands on the 12th of January 1765.

'[2] I recovered sight of the land ahead, which had the

[1] The motto chosen two centuries before by the Merchant Adventurers in England—afterwards the Muscovy Company and East India Company.

[2] Byron (John), Admiral, *An Account of a Voyage round the*

appearance of three islands; I imagined they might be the islands of Sebald de Wert, but intending to stand between them I found that the land which appeared to be separated was joined by some very low ground, which formed a deep bay. I tacked and stood out again, and at the same time saw land a great way to the southward, which I made no doubt was the same that is mentioned in the charts by the name of the New Islands. As I was hauling out of this bay, I saw a long low shoal of rocks, stretching out for more than a league to the N. of us . . . this land, except the low part . . . consists of high, craggy, barren rocks resembling Staten Land. . . . At daybreak the next morning [Sunday, 13 January] stood in for the N. part of the island [Saunders Island] by the coast of which we had been embayed.'

The next day came rain, a heavy swell, and a gale from the SE. Byron's bad weather was proverbial; in the Fleet he was known as 'Foul-weather Jack'. On Tuesday, the 15th, 'we entered a harbour of much greater extent, which I called Port Egmont.' This was in honour of the First Lord of the Admiralty—John Percival, second Earl of Egmont, who, according to Walpole, was never known to laugh—under whose direction the voyage was undertaken. Port Egmont, already named by Bougainville Port de la Croizade, is described by Byron as one of the finest harbours in the world—'the whole navy of England might ride here in perfect security from all winds.' There was fresh water, he said, in plenty; and near the ship's watering-place the *Tamar*'s surgeon fenced off a piece of ground and planted it with vegetables. Byron took possession of the harbour and all the neighbouring islands—under the name of Falkland Islands—for George III, in complete ignorance of the fact that the same islands had, the previous year, been very solemnly claimed for His Most Christian Majesty of France.

World. . . . In H.M.S. the Dolphin, by John Hawkesworth, 1773, vol. i, p. 45. See also *A voyage round the World in . . . the* Dolphin. . . . By an Officer on board the said ship. London, 1767.

Byron remained at Port Egmont until Sunday, January 27; when the two vessels sailed eastwards along the coast naming the headlands—Cape Tamar, the Eddystone Rock, Carlisle Sound (already named by Strong Falkland Sound), and Cape Dolphin. The next day he steered SSE. until, between two low islands he came to 'a very deep sound, which I called Berkeley's Sound . . . there is an opening, which has the appearance of a harbour . . . some rocks appear above the water upon which the sea breaks very high'. Had Byron penetrated the 'opening' he would have seen Fort St. Louis and come upon a very thriving French colony. But he went south, ignoring Fort St. Louis, ignorant also, it would seem, of the fact that his Port Egmont was not on the main island but on one of the smaller northern islands of the group.

He reached Magellan's Strait early in February; and, in Port Desire, found the *Florida*, the store ship expected from England. There also he saw an unknown ship which once came to the help of the *Florida* when she was in trouble. Her commander was Bougainville, who had been revisiting his colonists, and, finding them 'sains et contents',[1] had left them on the 5th of January to fetch for them some very necessary wood and timber.

Byron sent the *Florida* back to England on February 25th, doubtless with a full report of the Falkland Islands; then continued his voyage round the world.

Bougainville carried his cargo to his colonists, who now numbered 80, and left again for France the 27th of April. He bore with him, for Dom Antoine Joseph Pernety, a letter from Nerville—the first Governor of the Falklands, one of the most successful, and evidently one of the happiest. He writes of his first winter, 'jamais de neige assez pour couvrir la

[1] Bougainville (L. A. de), *Voyage autour du Monde*, 1771, p. 52.

boucle du soulier . . . l'air est excellent,'[1] and gaily describes their new bakery, and forge, and powder magazine. 'Mon cousin', declared Bougainville, 's'est conduit comme un ange . . . l'établissement prend très bien.'

The same year the *Aigle* and *Etoile* went out again to take stores to the colony. By that time the governor and his staff lived in stone houses. The other inhabitants, numbering in all 150, dwelt in humbler dwellings with turf walls. Two schooners, moreover, were at the service of the colony, and were used to explore the coasts. The *Aigle* took back with her to France the first cargo from the islands—oil and skins. The hopes of the Acadian and St. Malo adventurers rose high as they passed through their second winter. But trouble was approaching them.

On the receipt of Byron's warmly tinted report the Admiralty soon afterwards dispatched Captain, afterwards Admiral, Macbride to make a thorough survey of the islands. John Macbride had just been appointed to the *Jason*, 32 guns, which Carteret, one of Byron's officers, described as 'a fine frigate, copper-sheathed, amply equipped'. Of Macbride,[2] Rolfe, in his *Naval Biography*, says he was an Irishman; and refers to 'the free and exalted sentiments of his mind'. Doubtless these were qualities needing a warmer sun than that of the Falklands to bring them to maturity. The islands seem to have brought out in him a certain dourness, a gloomy intention of doing his duty there, *coûte que coûte*. It was doubtless his sense of duty to king and country that made him, when he sailed through Sebald de Weert's Islands in January, 1766, expunge from British maps the name of their discoverer, the name they had borne for close on two

[1] Pernety (A. J.), *Histoire d'un Voyage aux Isles Malouines*, 1770.

[2] For his career see Charnock (J.), *Biographia Navalis*, 6 vols., 1794–8, vi. 555–63.

'A DRAUGHT OF FALKLANDS ISLANDS'

From a chart by Captain Macbride, and showing the track of his ship, the 'Jason', in 1766

centuries, and call them after his ship, the Jason Islands. When he reached Port Egmont he put up the blockhouse he had brought with him; though, as there was no sign of any human being on the island, he did not think it necessary to open the loopholes. Then, contemptuous of Byron's rosy optimism, he wrote a report on sea, soil, and climate that was dark in the extreme. He, however, surveyed the islands with conscientious thoroughness—being the first to circumnavigate them—and kept a detailed 'Journal of the winds and weather and degrees of heat and cold by the thermometer at Falkland Islands, from 1st February, 1766, to 19th January, 1767'.[1]

After he had been nearly a year at Port Egmont, while on a surveying expedition, the inevitable happened. The *Jason* sailed into Baie St. Louis on the 4th of December, 1766. There, in the harbour, Macbride saw ships; on the land houses, people, something like fortifications. He was amazed; he was also to the last degree annoyed. He went below and wrote the following letter[2]:

'*Jason.* Berkly's Sound.
December 4th. 1766.

Sir,

As Falkland Islands were first discovered by the subjects of the Crown of England, sent out by the Government for the purpose, and of right belonging to his Majesty, and his Majesty having given orders for the Settlement thereof, the subjects of no other power can have any title to establish themselves therein without the King's permission. I therefore desire to be informed upon what authority you have erected a settlement upon the said Islands.

I am, sir,
Your most obedient servant,
J. W. Macbride.
Commanding officer of his majesty's Ships at Falklands Island.

To . . . Commanding officer of a settlement in Berkeley's Sound, Falklands Island.'

[1] See p. 249. The chart showing the tracks of the *Jason* and *Carcass* is reproduced facing p. 46.

[2] Add. MS. 32603, f. 36.

It is probable that M. de Nerville, who had been in undisputed possession of the islands for nearly three years, raised his eyebrows over this letter. The French in their turn grew angry. Nerville, however, sent by one of his staff—Captain Desperriers—a courteous answer to Macbride, which drew from the latter in his reply, dated the following day, an eager assurance that ' I am not come here with any hostile intentions ',[1] but only ' to examine these Islands accurately '. For which purpose he asks Nerville to allow ' the officers who carry this freely to look over your settlements '.

Consent being speedily given, the English officers went over the French settlement; and, in answer to questions, informed their hosts that they themselves had a wooden fort about 40 leagues off, which fort was armed with 24 pieces of 12; that they had already explored part of the island, and had climbed one of its heights; that the harbour where they were established was very fine, and that their colony counted some 250 people. Macbride was further invited to visit M. de Nerville in his stone house hung with blue linen and fleurs-de-lis; while Nerville was invited to dine on board the *Jason*. But a favourable wind springing up cut short the proposed interchange of hospitality; and the *Jason* sailed out of Baie St. Louis the following day, returning to Port Egmont where her crew existed morosely ' undisputed lords of tempest-beaten barrenness '.[2] Some there were who never saw home again. On the southern slopes of Mount Egmont lie the graves of John Coulson, died November 29, 1766; Andrew Ennis, died December 26, 1766; Thomas Harmood, died July 20, 1766, all of H.M.S. *Jason*. While Captain Patison, the commander of H.M.S. *Carcass*, which followed the *Jason* to the

[1] Add. MS. 32603, f. 36.

[2] Johnson (Samuel), *Thoughts on the late transactions respecting Falkland's Islands*, 1771.

Falkland Islands, was taken so ill at Port Egmont that the surgeons of both the *Jason* and the *Carcass* ordered him back to England.

The *Jason*'s people were by no means neglected by their government. The previous August Byron's old ship the *Dolphin* was sent out under Captain Wallis,[1] and was even then in Port Famine, cutting wood, which was dispatched to Macbride by the store ship *Prince Frederick* the 17th January, 1767.

Already the lonely islands were being caught into the web of European politics. News of the prospering French colony gave rise to the rumour that the islands were being ceded to France.[2] But indeed Spain was protesting against the French occupation. Not with the frenzy that an English occupation would have occasioned; because, as the French minister, the Duc de Choiseul, was good enough to explain later on, there was not the same 'reason for jealousy . . . as there would naturally be with a power so formidable at sea as England was'.[3] Still, she protested with energy. In the autumn of 1766 Bougainville was told of this. At the Duc de Choiseul's request he went himself to Madrid to discuss the question. The Spanish Government remained firm but offered an indemnity. Bougainville bound himself to deliver up to the Court of Spain 'those establishments along with the families, houses, works, timber, shipping built there and employed in the expedition, and, finally, everything therein belonging to the St. Malo Company . . . by this voluntary cession'.[4] He was to receive in return 618,108 livres, 13 sols, and 11 deniers; which he estimated to be the amount incurred by the

[1] The log of the *Dolphin* is among the manuscripts of the Earl of Egmont (Hist. MSS. Comm., 7th report, App., p. 232).

[2] Report by Prussian ambassador, October 17, 1766.

[3] *Correspondence of Wm. Pitt, Earl of Chatham*, iii. 119.

[4] Add. MS. 32603.

St. Malo Company ' in equipment for founding their intrusive establishments in the Malvina Islands, belonging to His Catholic Majesty '.[1]

This agreement reached, and signed October 4, the Spanish government, in a dispatch dated October 3, 1766, informed the Governor of Buenos Aires (the Viceroyalty of Buenos Aires was not established until ten years later) of their intention of re-establishing the Spanish Dominion 'sobre las islas Malvinas, ilegalmente ocupados por una compañía de San Malo bajo la dirección del Sr. Bougainville '.[2] Bougainville received part of the indemnity in Paris ; the rest he was to receive in Buenos Aires, in ' hard dollars ', at the rate of 5 livres per dollar.

Bougainville, and the two friends who had so successfully started the colony, sailed from Nantes in November, 1766, not, as previously, to bring fresh settlers, but to take all away. They reached Montevideo in February, 1767. In the Rio de la Plata Bougainville's frigate *La Boudeuse* was joined by the two Spanish frigates *Esmeralda*[3] and *Liebre*, which had left Spain the previous October with Nerville's successor as their commander. The three vessels sailed amicably south, encountering very heavy weather, and sighted the Malouines the 21st of March.

Faucher de Saint Maurice refers to the sad fate of the unfortunate Acadians, persecuted by Great Britain ' jusque dans les solitudes de l'Atlantique méridional '. It is hardly necessary to point out that Great Britain had nothing to do with the removal of the Acadians from the Malouines ; the agreement between the

[1] *Ut supra.*

[2] Angelis (Pedro de), *Memoria Histórica sobre los derechos de soberanía . . . de la Confed. Argentina*, no. 17, 1852.

[3] *Diario de la navegación efectuada por la fragata* La Esmeralda, *desde Montevideo á las islas Malvinas.* 1767. (Manuscript in Biblioteca Nacional de Buenos Aires.)

French and Spanish Governments being drawn up before Macbride so much as knew of the French colony's existence. Moreover the settlers were free to remain on the island under the Spanish flag if they so desired. About 95 [1] of the colonists decided to leave, and were, later, taken away on the Spanish ships; the residue decided to remain. The colony was formally handed over to Spain, in the persons of the new governor and his minister—Felipe Ruiz Puente and Miguel Vernazani—by Bougainville and Nerville on the 1st of April, 1767; the Spanish flag being saluted with gun fire both at sunrise and at sunset.[2]

Among the documents handed over to the new Governor of the island were copies of Macbride's two letters to Nerville, which made the Spanish authorities most uneasy. Between 1766 and 1770 many letters [3] passed between Julián Arriaga, Spanish minister of marine, and Francisco Bucareli, the Governor of Buenos Aires, on the rumours of an English establishment at the Falkland Islands or on the coast of Tierra del Fuego. When once the English colony should be found (no one seemed to know quite where it was) orders were given to expel them ' por la fuerza si no sirven las amonestaciones arregladas á las leyes '.

For the present Spanish pride and energy were satisfied with taking over Port St. Louis. Bougainville paid the expenses of the settlement up to the end of December, 1766; after which date they were borne by the Spanish government. A royal order from Spain, dated 24 November, 1766, created the governorship of the Maluinas, under the jurisdiction of the Captain-general of Buenos Aires.[4] Bougainville urged

[1] Add. MS. 32603.

[2] Bougainville (L. A. de), *Voyage autour du monde*, 1771, p. 46.

[3] Angelis (P. de), *Memoria Histórica etc.*, 1852. Buenos Aires Documents, nos. 19–27.

[4] Groussac (P.), *Republica Argentina*. Anales de la Biblioteca Nacional. Les Îles Malouines. Buenos Aires, 1910, p. 538.

on his Spanish successor the importance of increasing the stock of cattle; also the necessity of maintaining two ships 'para la comunicación con las Islas Maluinas et Río de la Plata y la Tierra del Fuego'. In a letter dated 'Aux Îles Malouines, le 21 avril, 1767', he wrote to Bucareli at Buenos Aires praising the zeal of the new governor and his minister; he refers to the French who are staying on the island, and to those who are leaving, putting those who are sick under Bucareli's protection. 'Pour moi', he concludes, 'j'attends *L'Étoile*, et je commence à trouver qu'elle tarde beaucoup à venir. Je compte l'attendre ici jusqu'à la fin de mai, et pendant ce temps mon équipage et moi nous serons à la disposition de M. de Ruys.'[1]

Later Bougainville rejoined his ship *La Boudeuse*, in which he sailed round the world. Scientist, diplomatist, courtier, soldier, and sailor, his memory was warmly treasured afterwards by his descendant Alfred de Vigny. The latter's admiration was the deeper in that his hero's attainments were impossible to him. For the navigator new worlds beneath the Southern Cross; for the poet, chained by poverty and ill-health, always the same stars. Yet in spirit Vigny went to sea and knew the life of sailors. The shipwreck in his *La Bouteille à la Mer* takes place in the Magellan Strait, where Bougainville was so nearly overwhelmed[2]; while the 'hardi capitaine' of the piece may well be meant for the explorer himself.

The remnant of Bougainville's happy settlement was, on his departure, viewed with strong dismay by the Spanish officials who had come to colonize it. The ships that sailed away from Port St. Louis the end of April, bearing with them the French settlers, bore

[1] Add. MS. 32603.

[2] Bougainville (L. A. de), op. cit., p. 162 et seq.

also various letters [1] to Bucareli recording the writers' impression of the islands, the tone of which approaches despair. Falkner, the Jesuit, represents Colonel Catani, commander of the Spanish troops, as watching the vanishing sails with tears in his eyes, and wishing that he might throw up his commission and return to Buenos Aires, though in no higher station than that of a cabin boy.[2] In letters dated 25 April, 1767, both Catani and Vernazani complain of the miserable houses. 'The buildings left behind by the French are not fit to be called houses, they are barracks', wails the Colonel, '. . . the dwelling left by the French commander, M. de Nerville . . . is built of stone and chalk mixed with earth (las quales son de piedra y cal merclado con tierra), and is thatched with straw . . . it may be called a house, whereas the others, to the number of 36, are only huts, to be lived in in case of need. If your Excellency is good enough, as we hope, to send us frequent stores we may be able to live; if not I think that when we have consumed what we brought with us we shall soon find an end of our labours by departing this world. We hope through God and Your Excellency not to perish.'

The Church, in the person of the Franciscan Sebastian Villanueva, viewed the chapel and sacristy and chaplain's rooms with the same disfavour. He writes in cold and misery of 'esta miserable tierra. . . . Todos los días son nublados'. So rare is the sun that the sight of it causes wonder. He remains in that miserable desert, to suffer all 'por amor de Dios'.[3] Winter was closing in. Lovers of genial warmth, the

[1] Add. MS. 32603, ff. 45–8.

[2] Falkner (Thomas), *A description of Patagonia . . . and some particulars relating to Falkland's Islands.* Hereford, 1774.

[3] Manuscript in Biblioteca Nacional de Buenos Aires. Printed by Groussac in *Documents relatifs aux Îles Malouines.*

Spaniards looked round their new possession, a place of grey distances and unquiet seas, of marvellous sunsets and perpetual winds. Awed by its stern aloofness and far-flung solitude they gave it no name, as English and French had done, of friend, or sovereign, or loved place of home; but, visionary, lofty, impersonal, of all names bestowed on the islands the most beautiful, they called it Isla Nuestra Señora de la Soledad.

Spain clung to that lonely outpost in grim endurance for over forty years; until South America slipped from her sovereignty, as a sceptre from worn out hands.

III

1767–1774

Joint Spanish and British occupation; dispute between the two nations.

The last entry in Macbride's *Journal* is dated 21 March, 1767. Judging from the following entry of 18 June, 'Gunners Stores . . . mem. for allowing the gunner of H.M.S. *Jason* for stores left for the defence of a block house at Port Egmont,'[1] the *Jason* must have been in England then. Captain Hunt, of the *Tamar*, succeeded Macbride at Port Egmont, on Saunders Island; while the settlement on Baie St. Louis, or Bahía de la Soledad, on the east of East Falkland, was ruled over by the afore-mentioned captain in His Catholic Majesty's Navy—Felipe Ruiz Puente, Knight of the Order of Sant Iago.

Each settlement found it convenient—and very easy—to ignore the existence of the other. Ruiz Puente wrote dispatches to, and received them from, his chief, the Governor of Buenos Aires. Often these last were intimations that the Spanish Government had sent vessels to search for that elusive English colony, which every one agreed was somewhere about; if it was not on the Malvinas it was on the coast of Patagonia; and if it was not there it must be somewhere else. But the dispatches were not always warlike. One, dated 30 November, 1767, informed the Governor that in consequence of the kindness shown by the natives to the crew of a Spanish barque wrecked on the east coast of Tierra del Fuego in January, 1766

[1] Acts of the Privy Council (Colonial) 1767, 18 June, Falkland's Islands.

the Government were sending out Dominican friars to civilize the Indians.[1]

Early in 1768 Ruiz Puente sent to his chief a report on the resources of his colony. Its only advantages, he reports, are the goodness of its harbours and its pastures for cattle. Corn will not ripen; vegetables are grown with difficulty, sheltered by high walls. He complains of the 'vientos impetuosos', of the storms of hail. The climate is healthy, the cattle fine; there are no reptiles or venemous insects, but many mice—'una infinidad de ratonaites.'[2] Having dispatched this report he proceeded to prepare one on the natural history of the islands which seemed so far from Europe's rush and turmoil.

But the storm long gathering between England and Spain was soon to burst. Ever since the Peace of Paris in 1763 France and Spain had been scheming against England, only waiting to gain sufficient strength to spring. The Manila debt[3] was a continuous source of irritation between England and Spain. The Manila question became closely connected with that of the Falkland Islands when, at a Cabinet Council held October 15, 1766, it was suggested that the two questions might be made one. Lord Shelburne, then Secretary of State for Foreign Affairs, writing 29 November, 1766, to Lord Rochford, Ambassador to France, declared that if the Manila ransom were paid England might, for the present, abandon her colonization of the Falkland Islands, without, however, abandoning her right to occupy.[4] But the question drifted

[1] Add. MS. 32603, f. 51. [2] MS. *ut supra.*

[3] On the surrender of Manila in 1762, the Archbishop-Governor, prisoner in English hands, endeavoured to procure the city's exemption from plunder by ransom. Spain refused to pay on the ground that the promise had been extorted by force, and that the city had been plundered.

[4] Hist. MSS. Comm., Reports 1–3. Appendix, 3rd Report (Marquess of Lansdowne's MSS. at Lansdowne House), vol. 23.

on without being settled; the two foreign premiers—Choiseul in France and Grimaldi in Spain—doing their best to delay hostilities until their countries were stronger. At the earliest not until 1769, Choiseul advised his king in 1765—his fear being lest Chatham, who had emerged once more from the cloud that had prisoned him, might hasten hostilities.[1]

But while Courts dallied over diplomatic correspondence a certain meeting was taking place on the wind-whipped seas round the Falkland Islands.

Some months after Ruiz Puente, in 1769, had dispatched to Bucareli, for shipment to Spain, his carefully labelled specimens of the birds and plants and fishes of the Isla de la Soledad, the winter being over, Captain Anthony Hunt, of H.M.S. *Tamar*, left Port Egmont to survey the neighbouring coasts. The Spanish schooner *San Felipe* was also on a surveying expedition, having on board her Mario Plata, an infantry lieutenant sent by Ruiz Puente to examine all adjacent harbours. Unfortunately for the success of her expedition, on the 28th of November the *San Felipe* met with the *Tamar*, who declined to allow her to proceed, and ordered her to return to Puerto de la Soledad. This the Spanish schooner did, staying there merely to report the matter to the Governor, and returning to the *Tamar* that Mario Plata might convey to Hunt two letters from Ruiz Puente.

Very courteous was the Spanish official in his letter dated Malvina, 30 November, 1769; welcoming Hunt as would a host an honoured guest—'offering you all the good offices dependent on me and agreeable to the Harmony and Agreement between the two Nations.' He cannot refrain, however, from expressing his great astonishment at Hunt's treatment of the *San Felipe*. Surely her captain must have given

[1] Choiseul-Stainville (E. F. de), *Mémoires . . . 1719–1785*. 1904, Appendix vii.

some cause of annoyance? Otherwise 'I can hardly think that an officer of your Rank, commanding a Ship of War of so civilized a Nation, should be so much wanting in Attention and Respect due to the King my Master's flag, especially within his dominions.' He takes for granted that Hunt's presence there is purely accidental, and that he will leave the islands immediately on the first formal warning to depart. 'God send you a long and happy life. The Bearer brings with him a Present, in token of my Regard for you and your Officers, if far beneath your Merit, or what I could have wished it, our Situation on both Sides must plead my Excuse.'

Don Mario Plata duly delivered his chief's gift and letter, which Hunt proceeded to answer on the 10th of December. His style was not courtly; it was, indeed, somewhat gruff. He informed Ruiz Puente that the islands belonged to His Britannic Majesty, and gave the Spanish commander six months in which to abandon the colony.

Before taking Hunt's letter Don Mario Plata had something to say to the Englishman, by whom he had been affronted. 'I protest', he declared, 'I protest three several times . . . against all he has said . . . against him for having threatened to fire into me if I prosecuted my commission, and especially for his having opposed my going to their Colony, which they said was called Port Egmont. I protest that Captain Hunt's going into La Soledad Harbour, though in an amicable manner, as he verbally told me, was an insult . . . after having caused this protest to be understood by means of the Interpreter . . . I have hereunto set my Hand on board the same *Tamar* Frigate . . . 10 Dec. 1769.'[1]

In due time his protest reached London, and, with

[1] *Papers relative to the late negotiations with Spain, and the taking of Falkland's Island from the English*, 1777.

other documents, was delivered into the hands of my Lords of the Admiralty.

Meanwhile the correspondence between Hunt and Ruiz Puente continued, not lacking in vigour, but somewhat staling with repetition; each continuing to assure the other that the islands belonged 'unto the King my Master', each giving the other instant notice to depart.[1] Ruiz Puente reported the matter to Bucareli at Buenos Aires, with the result that in addition to the *Santa Rosa*, the usual vessel plying between Buenos Aires and the Malouines, there sailed for the islands two fine frigates—the *Santa Catalina* of 32 guns commanded by Fernando Rubalcava, and the *Andalucía*, 30 guns, under Domingo Perler, with troops for Puerto de la Soledad. For some unexplained reason they found themselves outside Port Egmont, which they entered the 20th February, 1770; not, indeed, with any hostile intent, but with a modest request for water, with which Hunt duly supplied them. They stayed in Port Egmont harbour for eight days, during which time their conduct was exemplary. 'They behaved extremely polite and civil', says Hunt, 'never attempting to go ashore, though I paid the Captain and Officers the Compliment.'[2]

Though they did not go ashore the wooden block-house and unassuming huts near it were plainly visible, and shocked Rubalcava greatly, as he informed Hunt by letter the same day he anchored in Port Egmont harbour. Happening to come into this harbour he was surprised, he writes in a letter dated February 20, 1770, to find in it a kind of settlement under the English flag. 'I protest to you', he continues, 'both verbally and in writing, that you desist from your illegal Usurpation of this Harbour and Coasts. . . . I abstain from any other manner of

[1] Add. MS. 35503 (Hardwicke Papers).

[2] *Papers relative to the late negotiations with Spain*, 1777.

Proceeding till I have acquainted His Catholic Majesty with the disagreeable Affair, and receive his Royal Orders concerning it. God grant you a long and happy life.'[1]

Hunt replied the same day. That harassed man had for all available force his own small frigate, a sloop of war, the wooden blockhouse made at Deptford and brought out by Macbride, and four 12-pounders without a platform so that they could not often be fired. Grimly he returned the answer—of which by that time he must have been heartily tired—that the islands belonged to England, and that he meant to protect them to the utmost of his power: 'I do therefore . . . warn and exhort you, and all under your command, to evacuate them'[2]; and forebore to wish his correspondent a long and happy life.

On the last day of February the Spanish frigates withdrew to confer with Bucareli at Buenos Aires. In March Hunt also withdrew; the *Tamar* and the store-ship *Florida* proceeding to England, which they reached at the end of May. Among the letters Hunt took with him was one, dated Port Egmont, March 4, 1770, from Thomas Coleman, a lieutenant of marines left at Port Egmont, which he describes as 'the most detestable place I ever was at in my life . . . one wild heath wherever you turn your eye'. He refers to the English ships as 'two miserable little sloops. . . . I believe there never was such a commission given to two lieutenants of marines anywhere but here. I have a serjeant, drummer, and ten; my brother officer a corporal and eight, with which we are to defend a blockhouse that has not a gun in it, or a loophole cut, but from top to bottom is filled as full as it can hold with naval stores.'[3]

[1] *Papers relative to the late negotiations with Spain*, 1777.
[2] Ib.
[3] *The Grenville Papers*, 1853, iv. 505.

Besides the marines there were left at Port Egmont George Farmer, late commander of the *Swift*, and most of his men; the *Favourite*[1] sloop of war, William Maltby commander. The sloop *Swift* had been totally wrecked off the coast of Patagonia. One of her officers and six of the crew sailed the ship's cutter all the way to Port Egmont, fetched the *Favourite* to their comrades' relief,[2] and brought all the crew of the *Swift* back in safety with the exception of three sailors who were drowned when the *Swift* was wrecked.

While Hunt was sailing to England peremptory orders came to the Chief of the Spanish Naval Division at Montevideo—Capitán Juan Ignacio Madariaga—to enforce with all vigour the royal order of February 25, 1768, and to proceed at once to Port Egmont to turn out the English.[3] The order was not received with enthusiasm, for midwinter made navigation about the coasts of the Falkland Islands difficult; and rumour had magnified the wooden blockhouse at Port Egmont into a citadel. But Bucareli overcame all difficulties, and a force of 300 men of the Regiment of Majorca with troops from Buenos Aires, and a squadron of five frigates under the command of Madariaga, left the Rio de la Plata in May and proceeded to Port Egmont.

While Hunt in Plymouth Sound was dispatching his reports to the Admiralty, Captains Maltby and Farmer at Port Egmont saw enter the harbour the Spanish frigate *Industria*, having on board her no less a person than Capitán de navío Don Juan Ignacio Madariaga. Like her sister vessels in February she merely asked for water; being, she explained, from

[1] Robert Dyer, purser of the *Favourite*, died at Port Egmont, April 15, 1769. Private William Stedfall, R.M.L.I., also died there.

[2] *Gentleman's Magazine*, 1770, xl. 480.

[3] Angelis (P. de), *Memoria Histórica sobre los derechos de soberanía de la Confederación Argentina*, no. 27, 1852.

Buenos Aires on her way to Puerto de la Soledad. She had not been anchored there three days when, in bitter wintry weather, there appeared in the harbour, the 7th of June, four more frigates: the two visitors of February—the *Santa Catalina* (Rubalcava) and *Chebeque de Andalucia* (Perler)—with the *Santa Barbara* (Joseph Diaz Veanez), and the *Santa Rosa*[1] (Francisco Gil).[2] They had been parted from the *Industria* but four days previously. At the sight of her consorts the *Industria* hoisted the Spanish broad pennant. Very imposing looked the Spanish vessels beside the little, weather-beaten *Favourite* and her store-ship.

Captain Farmer promptly ordered his men on shore to defend the settlement, and told Captain Maltby to bring the *Favourite* nearer into Jason's Cove.

'One of the Spanish frigates sent an officer on board to acquaint Captain Maltby that if he weighed they would fire into him; which he took no notice of, but got under sail. The Spanish Frigate fired two shot, which dropped to Leeward of the *Favourite*, three of them got under Way, and kept working to Windward, as did the *Favourite*. Captain Maltby sent an officer on board the Spanish Commodore, to know the reason why one of the ships under his Command had fired two shot at the *Favourite*; his answer was that they were not fired at the *Favourite* but as signals to him.'[3]

The stores were cleared out of the blockhouse, the four 12-pounders from the battery which were so sunk in mud as to be useless were transported to the blockhouse and had portholes cut out for them. On the 8th of June Farmer wrote to Madariaga requesting him, since he had received the water he was in need of, to leave at once. Madariaga countered by inviting the Englishmen to view his troops, which they did on the evening of the 9th, and had the pleasure of

[1] Add. MS. 35503, f. 136.
[2] He was afterwards one of the governors of the Falkland Islands.
[3] State Papers relating to Spain and the Falkland Islands.

seeing—soldiers and sailors together—a force of over 1,600 men against their handful of defenders, with a train of artillery, mortars and bombs enough to reduce a citadel.[1] Madariaga sent a letter (9th June) to Farmer and Maltby, warning them to leave Port Egmont, or 'I will . . . make you quit the Place with the Fire of my Guns and Musquets, and you will be the cause of your own Ruin,'[2] and giving them fifteen minutes for their answer, which was one declining to yield.

That night Maltby came on shore with fifty of the *Favourite*'s men. The Spanish frigates moved opposite the blockhouse, and next morning, June 10, part of the Spanish troops landed half a mile to the northward of the English position; while the rest of the troops landed at Jason's Cove, covered by the fire of the frigates, whose shot went over the blockhouse. The defenders fired a few shots then, seeing the impossibility of defence against such a force, they hoisted a flag of truce and desired Articles of Capitulation which for the most part were granted, and signed the same day. The Spaniards then landed and took possession of Port Egmont and the blockhouse, with such valuable booty as a well-stocked cabbage garden, 422 bushels of coal, and a fine selection of stores such as turtle-nets, chain-plates, brimstone, hour-glasses, and 120 kersey breeches and waistcoats.[3]

One of the articles of capitulation had been that the *Favourite* might carry all she could with her 'and depart as soon as we are fit for sea'.[4] But the Spaniards detained her rudder, so that it was not until towards the middle of July that the little vessel was able to set sail for England, where she arrived seventy days later.

[1] Add. MS. 35503, f. 136.
[2] *Papers relative to . . . the taking of Falkland's Island*, 1777.
[3] Add. MS. 35503, f. 142.
[4] Ib., f. 138.

Farmer and Maltby dispatched reports to the Admiralty from Portsmouth the 22nd September.

Although Hunt brought information of the Spaniards' formal claim to the Falkland Islands early in June, the first news of the probable seizure of Port Egmont was sent to England by James Harris (afterwards first Earl of Malmesbury) then chargé d'affaires at Madrid. He wrote to Lord Weymouth [1] that a naval and military expedition had been dispatched from Buenos Aires in May to seize Port Egmont. His letter, dated the 23rd of August,[2] was received in London the 10th of September.

The Spanish ambassador, Prince Maserano, went to Weymouth the following day, and, coolly ignoring the orders sent by the Spanish court to Bucareli, said he had reason to believe the Governor of Buenos Aires had taken upon himself 'without any particular instructions from His Catholic Majesty' to dispossess the English of the settlement at Port Egmont. He further remarked kindly that he had come in person to tell Weymouth this to prevent the bad consequences which might arise from the news coming through other hands. He hoped that whatever had happened at Port Egmont the English Court would take no measures dangerous to the good understanding then subsisting between the Courts of England and Spain. Upon which Weymouth retorted that if what his Excellency surmised had come to pass it was difficult to see how 'the fatall Consequences of such a step could be avoided', and asked if the Ambassador was ordered to *disavow* Bucareli's conduct. That question Prince Maserano could not answer without instructions from Madrid.[3]

[1] Then Secretary of State for Foreign Affairs, Southern Department.

[2] State Papers, Spain, 253, f. 25 a.

[3] Ib. 253.

Ten days before the *Favourite* arrived with her news Weymouth wrote directing Harris to find out from the Marqués Grimaldi if the Court of Spain was prepared to disavow Bucareli's proceedings and to restore the English to their settlement in Falkland Island. Harris received this letter on the 24th September, and wrote back four days later that he had seen Grimaldi; that the Spanish Minister 'answered me in very vague terms'; was sorry such an event had taken place, but we must have known it was bound to happen. That as soon as the Spanish Government heard the hostile expedition to Port Egmont was intended they had dispatched a vessel from Corunna to prevent it; it was unfortunate the ship arrived too late. He (Grimaldi) could not blame M. Bucareli, his conduct being founded on the Laws of America. He assured Harris Spain had nothing to gain by war, and that the King of Spain would do everything in his power to terminate the affair in an amicable manner.[1]

In a private letter of the same date Harris assured Weymouth of the Spanish desire for peace; their army was in a poor state; 'their revenues were never in a worse condition.'[2]

There was a further interchange of letters between Harris and Weymouth. Then, the middle of October, Prince Maserano proposed a Convention in which he would disavow any particular orders given to Bucareli, but that the latter acted agreeably to his general instructions and to his oath as Governor. He is further to stipulate the Restitution of Falkland Islands without injury to his Catholic Majesty's right to those Islands; and he expects his Majesty to disavow the menace of Captain Hunt, which, he says,

[1] State Papers, Spain, 253.

[2] Harris (James), First Earl of Malmesbury, *Diaries and Correspondence*, 1844, i. 58.

gave occasion to the steps taken by the Spanish Governor.

These terms the English government refused to accept; for, as Weymouth said, restitution lost all value if it were conditional; and he directed Harris to inform the Spanish government of this decision. Lord Weymouth's dispatch of the 17th October reached Harris at 10 p.m. on Sunday, October 28th. He went to Grimaldi the following day with Weymouth's dispatch. 'I wish to God I knew what you expect!' exclaimed the Spanish Premier. 'I thought we had done so much that there remained nothing more for us to do.'[1] As Spain seemed less and less inclined to give satisfaction for the insult, on the 23rd and 28th of November Weymouth directed Harris to warn the Governor of Gibraltar and the English Consul at Cadiz of the state of affairs.

In Parliament, all through the autumn and winter sessions, the Government and Opposition wrangled over matters concerning the Falkland Islands.

In the House of Lords the Duke of Richmond declared, on the 22nd of November, that the hostile intentions of Spain were not limited to the Falkland Islands, and spoke of the miserable plight of the 3,000 British seamen then prisoners in Spanish ports.[2] While Chatham in a brilliant war-speech—afterwards described by Dr. Johnson as 'the feudal gabble of a man who is every day lessening that splendour of character which once illuminated the kingdom'[3]—condemned 'the defenceless, unprepared condition of this country' for which the Ministry were responsible. 'Before the country they stand', he said, 'as the greatest criminals. They have done everything that

[1] State Papers, Spain, 253.

[2] *Correspondence of William Pitt, Earl of Chatham*, 1839, iv. 2.

[3] *Thoughts on the late Transactions respecting Falkland's Islands* (published anonymously in 1771).

they ought not to have done, and hardly anything that they ought to have done.' [1]

Lord Shelburne denounced the ministerial hesitations no less vigorously: 'Had our Ministers, my Lords, even the wish to act with wisdom, they have not the ability . . . it would be actually worth our while to commence a war, merely for the purpose of gaining a fresh administration.' [2] At the end of November the Lords moved that Captain Hunt be ordered to attend the House the following Monday, that his papers might be laid before them. At another debate on December 14th, when war with Spain seemed imminent, the Lords and Commons being at variance, the Lords turned out the Commons; they, the same day, returned the affront by a motion (not carried) to clear the Lower House of 'Peers and all'.[3]

The following day Lord Weymouth resigned, the Earl of Rochford succeeding him as Secretary of State for the Southern Department.[4] Weymouth's desire had been, on the whole, for peace, and his dispatches had been non-committal; Lord Rochford, who had been Ambassador to France in 1766, where his relations with the Duc de Choiseul had not been of the most cordial, was more outspoken and believed war was inevitable. 'Milord Weymouth ne parle point', observed Choiseul, 'et milord Rochford parle trop. . . . Votre Ministère ne veut pas faire la guerre et ne sait pas faire la paix.' [5]

On the 21st of December Rochford wrote to recall Harris from Madrid, as all negotiations between himself and the Spanish Ambassador were at an end;

[1] *Gentleman's Magazine*, December, 1770, xl. 570.

[2] *Life of William Lord Shelburne, afterwards first Marquess of Lansdowne*, 1912, i. 418.

[3] *George III: Correspondence with Lord North*, 1867, i. 44.

[4] It was not until 1782 that the Foreign Office was established on the lines of the present day.

[5] Walpole (H.), *Memoirs of the Reign of George III*, 1894, iv. 123.

Harris was also to warn English ships to be ready to leave Spanish ports.[1] Three days later came the Duc de Choiseul's fall from power. For the last five years all his efforts had been turned against England; he possessed much influence with his own court and with that of Spain; and it was largely on his co-operation that Spain had been relying. He had, however, many enemies, the latest being Madame du Barry, through whose influence Louis XV, on Christmas Eve, signed the *lettre de cachet* depriving him of office and giving him twenty-four hours in which to leave Paris.[2] His successor was the Duc d'Aiguillon, whose views were pacific. Louis XV intimated to his loving Brother the King of Spain that a war with England at that juncture would be undesirable. At which intimation Charles III sent fresh instructions to Maserano. Out of regard for the King of France he would relinquish Falkland's Island. At the same time Maserano was to protest against any claim the English might set up to the Right thereof.[3]

On the 18th of January, 1771, Harris received orders to return to Madrid. On the 22nd, about an hour before Parliament met, was signed Maserano's Declaration, made known to the public by this message from Rochford to the Lord Mayor of London: 'The Spanish Ambassador has this day, at two o'clock, signed a declaration on the part of his Catholic Majesty, relative to the expedition against Port Egmont, which His Majesty has accepted.'[4] A clause in the Declaration ran: 'His Catholic Majesty does disavow the said violent enterprise ... and engages to give immediate

[1] The outbreak of war seemed so certain that Horatio Nelson left school—he was then 12—to go on board the *Raisonnable*, commanded by his uncle, Captain Suckling.

[2] Choiseul-Stainville, *op. cit.*, p. 270.

[3] Spanish State Papers (Papers relative to the taking of Falkland's Island), p. 31.

[4] Home Office Papers, 1771, 492.

Orders that Things shall be restored in the Great Malouine, at the Port called Egmont, precisely to the state in which they were before the 10th of June, 1770. . . . The Prince de Maserano declares, at the same Time, in the name of the King his master, that the engagement of his said Catholic Majesty to restore to his British Majesty the Possession of the Port and Fort called Egmont cannot, nor ought, any wise to affect the question of the prior Right of Sovereignty of the Malouine Islands, otherwise called Falkland Islands.' [1]

This last point is ignored in Rochford's acceptance of the Spanish declaration, the signing of which put a weapon into the hands of the Opposition which they were not slow to use. There was a persistent rumour that in the Declaration was some secret article safeguarding the pretensions of Spain to the islands. Three days after the agreement was signed the Duke of Manchester in the House of Lords moved that all information which had been received by the Government concerning the design of Spain upon the Falkland Islands and the subsequent negotiation for the reparation of the injury should be placed before the Lords, which motion was agreed to. While Chatham, in a speech which lasted upwards of an hour, characterized the Declaration as an ignominious compromise. 'It was no satisfaction, no reparation,' he declared; 'even the restitution was incomplete; Port Egmont alone was restored, not Falkland Island.'

A few days later Lord Shelburne and other Opposition Peers spoke to the same purpose. The Commons were anxious to know whether the French King had interfered in the late negotiations with the Court of Spain.[2] 'Junius', with a violence that defeated his ends, attacked not only the Ministry but the Ministers;

[1] Papers relative to the taking of Falkland's Island, 1777, p. 31.
[2] *Commons' Journals*, February 11, 1771.

Lord North was a traitor; in fact, they were all traitors; while Lord Rochford knew so little of his office that he could only manage to write 'barbarous French'. The King had received a blow and had not courage to resent it, even his guards would blush for him.[1]

The unhappy King, sneered at as Farmer George and the Button Maker, was made the subject of a caricature over the Falkland Islands question in the *Oxford Magazine* of February, 1771. He and the King of Spain are shown sitting opposite to one another, settling their differences over a paper of buttons. In the lap of Charles III is a bag of money, but King George's mind is wholly absorbed in another subject. 'I say', he exclaims, 'you never made so good a button in all your life!'[2]

The Ministry was upheld by Dr. Johnson who from information supplied by the Government replied to 'Junius' in a pamphlet published at first anonymously, and of which the first edition was stopped by North, with characteristic amiability, because it contained a sneer at George Grenville. In this Johnson ridiculed the idea of going to war for 'the empty sound of an ancient title to a Magellanick rock[3] . . . an island thrown aside from human use, stormy in winter, barren in summer, an island which not the southern savages have dignified with habitation; where a garrison must be kept in a state that contemplates with envy the exiles of Siberia, of which the expense will be perpetual, and the use only occasional . . . a nest of smugglers in peace, and in war the refuge of future Buccaniers.'[4]

[1] *Letters of Junius*, 1819. Vol. ii, p. 46, Letter xlii, January 30, 1771.

[2] Wright (Thomas), *Caricature History of the Georges* [1867], p. 324.

[3] *Thoughts on the late Transactions respecting Falkland's Islands*, 1771, p. 45.

[4] Ib., p. 40.

The order for the restitution of Port Egmont was signed by Arriaga the 7th of February, 1771. Harris, in a private letter to Rochford dated Madrid, February 14th, wrote: 'They keep the declaration here as secret as possible . . . they also report that we have given a verbal assurance to evacuate Falkland's Island in the space of two months.' [1]

A month after the convention was signed the Spanish ambassador was still pressing Rochford to agree to a 'mutual abandoning of Falkland's Island'. To which proposition Rochford replied that the restitution of Port Egmont 'must precede every discourse relating to those islands'. On the 22nd February he wrote to the Secretary of War that, the difference with the Court of Spain being happily accommodated, it was His Majesty's pleasure that the land forces be immediately reduced to the peace establishment.[2] The same day he sent directions to the Lords of the Admiralty to fit out a frigate, a sloop of war, and a store-ship, for the purpose of receiving the restitution of Port Egmont and its dependencies, and remaining in possession of the same, and of bringing to England immediate advice of the restitution having been effected.[3] In consequence of which orders the Admiralty sent out the *Juno* frigate of 32 guns (Captain Stott); the *Hound* sloop (Captain Burr); and the store-ship *Florida*. After the restitution Stott was ordered to return to England with the *Juno* and the *Florida*, leaving the *Hound* stationed at Port Egmont with Burr as Governor. Stott was directed to proceed with the greatest prudence and civility towards the Spanish commander, 'carefully avoiding anything that might give occasion to disputes or animosity.' [4]

[1] Harris (James), First Earl of Malmesbury, *Diaries and Correspondence*, 1844, vol. i, p. 77.

[2] Home Office Papers, 1771, 548.

[3] Ib., 547.

[4] Add. MS. 32603, preliminary matter, p. 19.

The *Juno* and her consorts were at Rio de Janeiro at the end of July and reached Port Egmont the evening of the 13th September. The following morning, seeing the Spanish colours flying at the former English settlement, Stott sent one of his officers to know if any one was there on behalf of the King of Spain to make restitution of the possession. Whereupon a Lieutenant in the Spanish Artillery, Francisco de Orduna, replied that he was furnished with full powers. He visited Stott on board the *Juno*; and, on Monday, 16th September (1771), Stott landed with a party of marines, and the Spanish officer formally restored to him Port Egmont. 'On which', says Stott, 'I caused His Majesty's colours to be hoisted and three volleys and the *Juno*'s five guns fired; and was congratulated, as were the officers with me, by the Spanish officer with great cordiality on the occasion. The next day Don Francisco with all the troops and subjects of the King of Spain departed. . . . The transaction was effected with the greatest appearance of good faith, without the least claim or restitution being made by the Spanish officer in behalf of his Court.'[1]

The *Juno* was back again at Plymouth the beginning of December. In a letter dated from Port Egmont the 10th November, 1771, Captain Burr informed the Admiralty that the previous October two Spanish ships had arrived at Port Egmont with all the artillery, provisions, and stores which had been taken thence by the Spaniards in 1770. Burr received the same from a Commissary appointed by Don Felipe Ruiz Puente. Once again English and Spanish settlements lived in mutual amity on their respective islands.

With the formal return of Port Egmont the British Government seemed content to leave matters alone; but the people, with wider vision, desired not only

[1] *Ut supra*, p. 20.

possession but colonization. A would-be colonist wrote to Rochford early in 1772.

'Old Lloyds' Coffee hº 14 Jan. 1772.

'My Lord,

As a report at present prevails, that Government intend sending some Families to establish a settlement at Falkland's Island . . . am enduced to trouble your Lordship, requesting to know . . . what encouragement would be given to a Gentleman and his Wife to settle there. He is about 30 years of Age, has lived abroad several years, and been regularly brought up to Trade and Commerce, has respectable Connections both in England and America, and flatters himself could be very usefull in the Establishment both of Trade and Cultivation of the Island.' [1]

He wishes to be honoured with a line to be left at 'Old Lloyds' Coffee House in Lumbard Street'. The letter is entered under the initials J. W., and is addressed to 'Lord Rochord [*sic*] at the Secretary of State's Office in Cleavland Row'. There is no record of any answer being sent to the writer's modest request; Secretaries of State are not fond of wasting courtesy on unknown individuals. So far, indeed, from any attempt on the part of the state to consolidate and people the nearly-lost outpost, early in March, 1772, it was decided, from motives of misplaced economy, to reduce the already negligible force at Port Egmont to a small sloop with about 50 men and 25 marines on shore. 'Which', explained Rochford to Lord Grantham, 'will answer the end of keeping the possession, and, at the same time, ought to make the Court of Spain very easy as to our having any intention of making it a settlement of Annoyance to them.' [2]

The plan suggested by the Admiralty in February was not ready to be carried out until November,[3] and,

[1] Home Office Papers, Dom., 9 Geo. III, 14 January, 1772.
[2] Add. MS. 32603, f. 12.
[3] Home Office Papers, 1772, no. 1531.

on the 4th December, 1772, there sailed out of the Downs the store-ship *Endeavour* under the command of a naval lieutenant named Gordon. The *Endeavour* carried not only her own seamen, but also another vessel and that ship's company. In pieces, ready to be fitted together, lay the *Penguin*, an armed shallop, mounting ten swivels, built at Woolwich for the purpose. She was to be left to guard Port Egmont in place of the *Hound*. With the *Penguin* would stay her commander—Lieutenant Samuel Wittewrong Clayton; besides one master's mate, two midshipmen, two surgeon's mates—one of whom, Bernard Penrose, wrote a spirited account of the expedition[1]—about a score of seamen, and the same number of marines.

The *Endeavour* made Jason Islands on the 28th of February, 1773; and, late the same evening, anchored in Port Egmont Harbour, causing great satisfaction to the *Hound*'s people who had given up the store-ship as lost. The next morning, March the 1st, 1773, Clayton went on shore to congratulate Burr on his being relieved, somewhat to the latter's surprise—for he saw only the store-ship and knew nothing of the *Penguin* in her hold—and still more to his satisfaction, for he had been there nearly eighteen months; and he welcomed the new-comers 'with undissembled joy'.

Macbride's blockhouse was still the most commanding structure in the settlement, which was on the south side of Saunders Island, overlooking the harbour. The governor's residence, to which Burr introduced his successor, was elegantly lined with red baize, covered with tarred canvas, with a window and door-light formed out of two spare sashes which had belonged to the *Jason*, and with a chimney formed from an old ship's funnel. The petty officers had but a cask for their chimney. After Burr left, Clayton

[1] Penrose (Bernard), *An account of the Last Expedition to Port Egmont in Falkland's Islands in the year 1772.* 1775.

had a small parapet made round his house on which were mounted the *Penguin*'s swivels, which were fired whenever there seemed an occasion for rejoicing.

Most of the buildings were thatched with turf, bound on rafters made from the ribs of whales cast on the shore. The first work done was the laying of the *Penguin*'s keel by the shipwrights brought from England for the purpose. The artificers worked their hardest, and, the weather being unusually fine, she was launched on the 9th of April. A week later the *Hound* and *Endeavour* sailed for England, leaving the little *Penguin* in sole possession of the settlement. Penrose, who wields a gay and kindly pen, and is, moreover, a keen observer—not his least engaging trait being his care for the birds and beasts often so wantonly persecuted by the seamen—gives a pleasant sketch of life on the islands, paying a generous tribute to Clayton's kindliness and tact.

A healthy and decorous discipline was maintained. 'The sabbath was constantly kept in a decent manner,' writes Penrose,[1] 'divine service was performed by Mr. Clayton himself, and the Articles of War were read every month.' Clayton's account of the flowers will be found among the notes on the Flora of the islands.[2] On the 6th November the tussock-grass was accidentally set alight about four miles from the settlement. The night was dark, a hurricane was blowing. Fanned by the wind, fed by some casks of pitch and tar and rosin near the blockhouse, in spite of all endeavours to check it the fire leaped forward and spread for twenty miles round, nearly suffocating the garrison and bringing death to hundreds of seals and penguins, until a downpour of rain extinguished it.

With the approach of their second winter, early in February, 1774, came a visitor—the brig *Montague*, Collins, master, from Boston in search of whales.

[1] Penrose (Bernard), op. cit., p. 44.

[2] Pages 267–8.

The *Montague* reported having seen a vessel in distress near the Ambrolhos, which the *Penguin*'s people feared might be the *Endeavour*, the store-ship then due from England. A week later there arrived at Port Egmont another whaler—the *Thomas*, Smith, master, from Cape Cod. The American whalers remained on the friendliest terms with the British, Clayton rendering them all the services in his power; and all made ready for the winter.

While the *Penguin*'s people were settling down into their new life—exploring, hunting, fishing, repairing dwellings, cultivating gardens (there were thirty-eight gardens, about a mile from the settlement), soberly keeping the sabbath, with, for mental tonic, hearing the Regulations of War read once a month, the Government at home was giving orders for the colony to be abandoned. 'It is neither more nor less than a small part of an economical naval regulation,' explained Lord Rochford to Lord Grantham in a letter dated 11 February, 1774.[1] So the *Endeavour* was sent out with orders to evacuate Port Egmont. Before she could reach Saunders Island instructions were sent from Spain to the Governor of the Malvinas on the 9th April.

'Offers being made, as they are, by the Court of London, to relinquish the settlement made by them in the Great Malvina [English and Spanish authorities persisted in assuming that Port Egmont was on West Falkland] . . . the King desires that . . . you may consequently observe, with due prudence and caution, whether the English do, in fact, abandon the said settlement . . . renew your exertions to make sure that they do not return to that quarter.'[2]

At last—so long after she was expected that the look-out party had been withdrawn from their bleak station on Keppel Island—on the 23rd of April the *Endeavour* was seen standing into Port Egmont har-

[1] Add. MS. 32603, preliminary matter, p. 21.
[2] Ib., f. 6 b.

bour. The sight of her was received with delight, which increased to 'sensations beyond description' when it was known she brought orders to evacuate the settlement and return to England; though Penrose considers it necessary almost to apologize for the joy the news gave to every man. A month later the storehouses were cleared, the *Penguin* was taken to pieces—though a good deal of her timber was by that time only fit for firewood—everything of value was put on the *Endeavour*, and, on the 20th of May, all was ready. The night before they sailed a whaler from Rhode Island, the *King George*, Greenwood, master, limped sadly into the harbour, having been caught and maimed in a south-westerly gale, losing all her anchors but one. They could give her no stores for all was stowed away in the *Endeavour*'s hold and she was to sail next day, under her commander Gordon. Clayton resigned his command on quitting Saunders Island. His last act as Governor of the settlement was to affix on the door of the blockhouse —the seamen ranged in order and the marines drawn up under arms—the following inscription engraved on lead:

'Be it known to all nations, That Falkland's Island, with this fort, the storehouses, wharf, harbours, bays, and creeks thereunto belonging, are the sole right and property of his most Sacred Majesty George III, King of Great Britain. . . . In witness whereof this plate is set up, and his British Majesty's colours left flying as a mark of possession by S. W. Clayton, commanding officer at Falkland's Island, A. D. 1774.'[1]

The Union Jack was then hoisted amid cheers, and all embarked (leaving the North American whalers at the island) with the utmost satisfaction. The *Endeavour* met with severe weather on her homeward voyage, the master and two men being washed overboard. She reached Spithead on the 19th September, safely anchoring at Woolwich ten days later.

[1] Penrose (Bernard), op. cit., p. 76.

IV

SPANISH RULE, 1775–1808

Under Spanish Rule.

Spain watched the evacuation of Port Egmont with triumphant eyes, making evacuation spell abandonment. In obedience to orders Captain Juan Pascual Callejas went the following year to make a formal survey of Port Egmont and the adjoining bays. As might be expected he found the deserted settlement in a melancholy state—the doors of huts and warehouses open, roofs letting in the rain, and some of the stores scattered along the shore.[1] He took down Clayton's carefully worded inscription and carried it away with him to Buenos Aires, where it was placed among the government archives. Finding some whalers at Saunders Island he reported to his government the presence of English ships at Port Egmont. On Callejas's information Prince Maserano complained of the fact in London, to be assured by the British Minister that the ships in question were whalers from the North American colonies. Spain then sent orders to the Viceroy of Buenos Aires—which viceroyalty was created in 1776 by detaching from Peru the three provinces that were to form later the Argentine Republic—and to his subordinate the Governor of the Malvinas, then Francisco Gil (the governors at Puerto de la Soledad were nearly always Spanish naval officers), to send two frigates to the islands to intimate to any ships from the English colonies that, England having evacuated the settlement, they should cease

[1] *Colección de documentos oficiales . . . sobre las islas Malvinas.* Buenos Aires, 1832, No. xxix.

to frequent those seas and coasts. This intimation seems hardly to have had the desired effect—indeed it may be said the whaling ships quite ignored it.

In April, 1777, Pablo de Zizúr was sent to survey the islands and Cape Horn. He was wrecked in lat. 49° S. and cast on a rock. He and his companions managed to construct a small boat in which they ventured forth once more towards the south. After several days' struggle and suffering, when strength and food were failing them they saw the Malvinas; and were rescued by a ship anchored in Bahía de la Soledad, and taken on shore,—Zizúr with a frozen foot which had to be amputated.[1] The same year Gil was succeeded as Governor of the Malvinas by Ramón Caraza, who held the post from 1777–1781. He received directions that all traces of the English colony at Port Egmont were to be destroyed. When war, smothered in 1770–1, broke out between Great Britain and Spain in 1779 the Viceroy of Buenos Aires was ordered at all costs to make all efforts to succour and strengthen the colony at Puerto de la Soledad, so that the English might not claim the islands as derelicts.

In March, 1787, Don Pedro Maza explored the Malvinas thoroughly without finding any English o strangers whatever. This seems odd as Ramón Clairac names quite a number of English and American whalers about that time in Port Egmont harbour. Clairac replaced Agustín Figueroa as Governor at Puerto de la Soledad in 1785, at which time the Spanish colony consisted of thirty-four buildings with a population of under 100 including the garrison; the flocks of all kinds numbered 7,774 head. Communication between Puerto de la Soledad, Port Desire, and Montevideo was kept up by six ships of war, which had special orders to protect the islands from all

[1] Angelis (P. de), *Colección de Obras . . . relativos a la Historia . . . de las Provincias del Rió de la Plata.* Buenos Aires, 1910, v. 220.

attacks; and were paid by the Treasury of Buenos Aires to the amount of 83,509 pesos.

Clairac in his report[1] gives the names of seven English (and one American) vessels in Port Egmont Harbour from 1787–90, employed in the whale and seal fisheries; the annual number of seal skins and of pipes of whale and seal oil; and the value of the whole in *pesos fuertes*. The English whaler *Audax*, he says, 'has been employed from the beginning of 1786 to the end of 1789 in Port Egmont, in loading oil and skins to sell to the other ships of its nation which sail among these islands. The Captain in Puerto de la Soledad states that this business has been very profitable, the buyers doing well on account of the short time that they have to stay out here. Clairac showed himself keenly anxious to develop the resources of his colony, and to disabuse people's minds of the common error that the Malvinas were a sterile possession and their inhabitants of no use to the Crown of Spain.[2] It was probably due to him that the fishing company established by Spain in 1790 with various privileges, its principal factory being at Port Desire, was made to extend to the Malvinas by the royal order of 15th September, 1792. It was during Clairac's governorship that Carlos IV came to the throne of Spain, and the occasion was made the subject of proper rejoicing in the far-off island.[3] Clairac was succeeded as governor by Juan José Elizalde, who sternly warned off the English whalers and all stranger ships. By then the *comandancia* of Port Desire was united with that of the Malvinas under one governor.

In 1794 Don Jerónimo Lovatón was sent to the Malvinas in the brig *N. S. de Belén* to make a further

[1] Add. MS. 13974, ff. 367–72. [2] Ib., f. 370.

[3] *Relación de las reales funciones hechas en la colonia de la Soledad (Malvinas) con motivo de la exaltación de Carlos IV al trono.* (Manuscript in Biblioteca Nacional de Buenos Aires relativo a América.)

examination of their coasts.[1] His vessel seems to have been one of those—including the *San Julián*, *Carmen*, and *San Antonio*—which were the regular means of communication between the Falkland Islands, Puerto Deseado, and Montevideo. It was from Puerto de la Soledad that the *Atrevida* sailed on 10 January, 1794, in search of the Aurora Islands—the mythical islands to the SW. of the Falklands, first seen in 1762 and vainly sought for afterwards.

In spite of the efforts of Ramón Clairac, and one or two other governors, the Spanish colony at Puerto de la Soledad was never a success—indeed, Juan José de Vértiz, when Viceroy of Buenos Aires, suggested in 1783 that the settlement should be abandoned, and only visited once a year to make sure the dreaded English had not appeared on the island. His advice, however, was not followed; the Malvinas were held on to grimly, and appear briefly in the Reports of the Viceroys of Buenos Aires[2] until 1807. At the end of the eighteenth century the chain binding her colonies to Spain was wearing very thin and was soon to break. The last Spanish governor of Puerto Deseado and the Malvinas was Juan Crisóstomo Martínez who in June, 1806, abandoned his post having heard from an American captain that Buenos Aires was in the hands of the English. The letter announcing his retreat is addressed to de Liniers from Rio Negro, and dated 28 December, 1807.[3]

Buenos Aires was indeed taken by General Beresford 2 July, 1806, but recaptured by the Chevalier de Liniers—afterwards viceroy—on the 12th of August.

[1] *Extracto de diario . . . D. Jerónimo Lovatón . . . 3 de Mayo de 1794.* (Manuscript in Biblioteca Nacional de Buenos Aires.)

[2] Now in the government archives in Buenos Aires. Extracts from these Reports from 1770–1801 were made for Sir Woodbine Parish in 1830. They are now in the Brit. Mus. Add. MSS. 19576 and 32603.

[3] Angelis (P. de), *Memoria Histórica sobre . . . la confederación Argentina.* Buenos Aires, 1852, Documentos 42.

While Beresford was in possession of Buenos Aires he came across, or was shown, Clayton's leaden plate containing the warning inscription that the Falkland Islands belonged to Great Britain, and which, a year later, Callejas had removed from the blockhouse. General Beresford took it with him to England. A manuscript in the Biblioteca Nacional describing the plaque has this brief comment: 'Esta lámina se la llevó Berresford.'[1]

Martínez never returned to his post. Spain's jurisdiction had ceased; four years later her South American colonies revolted. For the next six years was confusion—disorder approaching anarchy. Then out of the welter and agony a political community came into being, by the Declaration of Independence of 9 July, 1816, under the name of the United Provinces of Rio de la Plata, with its seat of government at Buenos Aires. The United Provinces, though but just born, claimed to succeed Spain in the sovereignty which she had modestly assumed over the South American continent between the Andes and the Atlantic, from Rio de la Plata to Cape Horn, including Tierra del Fuego, the Straits of Magellan, Staten and other islands, including, of course, the Falklands. But for the first few years the new state had a sore struggle to keep herself alive and had no thought to spare for distant islands.

[1] Groussac (Paul), *Les Îles Malouines*. (Anales de la Biblioteca Nacional.) Buenos Aires, 1910, p. 522.

V

1808–1834

No man's land — The beginning and the end of Argentine dominion — Vernet's efforts — The raid of the *Lexington* — Murder of Brisbane.

The neglected Malvinas, abandoned by those nations which had almost fought to get possession of them, became the hunting ground of whalers, and sealers who killed and maimed without mercy seals, whales, cattle, birds—every living thing that came within their range. It was during these years that on some of the smaller islands west and south-west of the group was played a drama of shipwreck, treachery, and marooning, not excluding feminine interest, which would need a Stevenson or a Conrad to do it justice. A full relation of it will be found in the narrative[1] of the most important—though not the most striking—figure of the piece, a gentle-enough, kindly, somewhat plaintive New England sealing captain.

Captain Charles H. Barnard, in the brig *Nanina* of New York, came to the Falkland Islands for seal-skins; made the islands 7th September, 1812, and anchored in Hooker's Harbour, New Island. Besides the crew he had with him his father, and one or two ship masters—one was Edmund Fanning—temporarily out of employment owing to America's strained relations with England and France. At first they went sealing at the Jasons. Soon after midsummer, at the beginning of January, the *Hope* of New York called

[1] Barnard (Charles H.), *A narrative of the sufferings and adventures . . . in a voyage round the World during the years 1812, 1813–1816; embracing an account of the seizure of his vessel at the Falkland Islands . . .* New York, 1829.

at New Island and informed Barnard that the United States had declared war against Great Britain. Barnard recalled his men from the Jasons—whither they had gone in the shallop *Young Nanina*—and they settled down for a stay of some months in Barnard's Harbour—a haven on the west of West Falkland, about forty miles south from New Island. In April they were anchored in Fox Bay, SE. of West Falkland, when they saw smoke rising from one of the Anican Islands. But few ships touched at these islands, which lie low and dark and desolate at the SE. entrance to Falkland Sound, and are separated from East Falkland by Jason Strait. The three largest of the islands are Eagle, now Speedwell Island, George, and Barren; it was from Eagle Island, which is about ten miles long and two or three wide, that the smoke came. With a breeze from the NW. Barnard sailed out of Fox Bay and anchored at the NE. of Eagle Island. On getting close to the island he had seen eight or ten persons and had hoisted the American colours to cheer them.

There were nearly fifty people on the island, including half a dozen women and some children. They were overjoyed to see Barnard and his companions, welcoming them, literally, with open arms. Certainly one lady wept. But, as Barnard discovered afterwards, Mrs. Durie's sensibility was extreme; she frequently dissolved in tears; she had, nevertheless, what Barnard defines as 'the sympathizing heart which distinguishes the tigress'. At the first moment of meeting the discoverers were all pity and kindness, the discovered all gratitude. Winter was coming on; the wretched people had been on the island for nearly two months. Their ship the *Isabella*, 180 tons, of London, from Port Jackson, New South Wales, to London, had been wrecked on the night of the 9th February. Later Barnard became aware that with the exercise of some courage, a little discipline, the *Isabella* need

never have been wrecked at all. Her captain, George Higton, appears to have been incapable when sober, and merely truculent when drunk. The only capable members of the party would seem to have been two passengers—Captain Brooks and Lieutenant London—who with four seamen set forth in the long boat to bring relief from South America. Meanwhile an attempt was being made by means of an indifferent carpenter, with a few poor tools, and without planks, or forge, or pitch, to construct a boat out of fragments of the *Isabella*. This craft was being built on the top of a bluff, so that a miracle only would convey it to the water.

Captain Barnard was further introduced to Robert Durie, Captain in the 73rd regiment of Foot, and then in command of fourteen marines. Captain Durie may be adequately described as Mrs. Durie's husband. Mrs. Durie also had children. There was also among the shipwrecked General Holt, 'formerly of the Irish Patriots', and still, on principle, antagonistic to all existing authority, whatever it might happen to be. Then there was Mrs. Holt; and a drummer on board had his wife with him. The ladies accompanying Captain Higton and Lieutenant London were not their wives. The Wicked Baronet was not wanting; only he was a knight. The son of a Dublin brewer, he received knighthood, it would appear, for some dubious piece of electioneering work. In appearance he was not knightly; so when, in Dublin, he approached a quaker heiress to induce her to become Lady Brown Hays she declined the honour. Undaunted the gentleman forcibly abducted her, and arranged a mock marriage. She was rescued in time, and Hays discovered abduction was a hanging matter, though his death sentence was commuted to transportation for life. In 1800 he was sent out to Botany Bay in a convict ship commanded by Captain Brooks. So violent was

Hays on board that Brooks put him in irons. Both at Botany Bay and Jackson Bay Hays became notorious. He rendered some service, however, to a conscientious Governor of Botany Bay, who, when he returned to England, sought for, and at last obtained, a pardon for Hays. It may be imagined that when Hays discovered Brooks as a fellow passenger on board the *Isabella* he sought every opportunity for revenge. He could not do much, however—even with Higton as his boon companion—until the *Isabella* struck, when he relieved his feelings somewhat by negativing all Brooks's efforts first to prevent the wreck, and afterwards to aid his fellow sufferers. A secondary villain was Mattinson, dismissed from the British navy, who had come on board the *Isabella* as a stowaway at Port Jackson. Mattinson faithfully modelled his conduct on that of Sir Henry Brown Hays. There was also a seaman, Sam Ansell, who took for his model Mattinson. Altogether among the late *Isabella*'s passengers and crew was some highly inflammable material.

Captain Barnard's first thought was of succour and relief. Mrs. Durie—in tears—insisted on being taken on board the *Nanina* with her children immediately. Barnard consented; then offered on easy terms to convey the whole party on board the *Nanina* and to land them at some port in South America. An agreement was drawn up to that effect. Before it was signed Barnard volunteered the information that Great Britain and the United States were then at war; adding that he hoped this fact would make no difference to the present friendly relations between those present. All acquiesced in this hope but Hays.

It was impossible to sail at once, a continual gale blowing from the 22nd of May to the 3rd of June. An addition of so large a party made it necessary to lay in a stock of provisions for the voyage. Accordingly, while the *Nanina* was at New Island Barnard, with

four seamen—one being Ansell of the *Isabella*—went to Beaver Island pig hunting. When they returned with wild hog the *Nanina* had disappeared; brig, crew, passengers—all had vanished, leaving nothing, not even a message, behind.

Instigated by Sir Henry Brown Hays, on the pretext that Barnard meant to run into a North American port, where they would all be made prisoners of war, the British overpowered the few Americans on the *Nanina* and went off with the brig. On the entreaties of Barnard's father the *Nanina* was hove to off Beaver Island and two guns were fired as a signal to him and his companions to come off—useless, as they were the other side of the island; but the English refused to allow a party to land and bring the hunters off. As the *Nanina* came near Eagle Island her people were amazed to find the British gun-brig *Nancy*. Brooks and his companions had actually succeeded in reaching Buenos Aires in the long boat, and, in answer to their appeal the *Nancy*, under Lieutenant W. D. Aranda, had been sent to the *Isabella*'s relief.

Aranda boarded and 'captured' the *Nanina*—though it appears that Hays, Mattinson, Captain and Mrs. Durie, and another lady all claimed that honour; and all assisted in plundering Barnard's state room for spoils of war. According to the narrative the treatment by the British of the 'Yankees' was 'infamous to the last degree'. What hurt Barnard more than anything was that the *Nanina* after reaching Rio Janeiro was actually dispatched by the British admiral there to London and declared a prize—'wresting from an unfortunate man his vessel, while in the act of saving many of their subjects from actual starvation'.[1]

The plight of Barnard and his companions was most wretched. Throughout June and July it was bitterly

[1] Barnard (Charles), *A narrative of the sufferings and adventures . . . in a Voyage round the World. . .* New York, 1829, p. 208.

cold. For a time they were on Swan Island, then they returned to New Island. Then, terrorized by Ansell, the other men deserted Barnard, even taking away his dog. A short while after the truants returned, repentant, from Beaver Island, and, in self defence, marooned Ansell on another island. Later they fetched him off; and so softened was he—for the time—by the loneliness that he permitted Barnard to teach him to read. They lived on what they could catch; seals being meat and light, fuel and clothing to them. Without Barnard's patience, quiet courage and resourcefulness they would probably have become insane.

Their desolate second year of abandonment was nearly half through when two British whalers—the *Indispensable* of London, William Buckle, master, and the *Asp*, stood in for New Island, saw their signals and rescued them. Captain Buckle explained that he had received a letter from the English admiral at Rio, asking him to look out for them should he put into any of the islands. It was then that Barnard heard of the *Nanina*'s fate, and learned something of the war; of the exploits of the *Essex*,[1] and the epic duel between the *Shannon* and the *Chesapeake*. The English whalers—men of his own craft—comforted him, too, by assuring him the treachery of the *Isabella*'s people was reprobated by England—in spite of the Admiralty's decision. So the Falklands were left behind. A year or two later Barnard touched at the group again, this time taking off an English sailor left behind by his ship.

A few years later occurred another shipwreck; this time off East Falkland, outside Berkeley Sound, and those on board her were not as the people of the

[1] The American frigate *Essex* unmolested scoured the South Seas for nearly a year—burning, sinking, and destroying. Her captures amounted to twelve sperm whalers, and although most were afterwards recaptured the fisheries were paralysed.

CAPTAIN BARNARD RECEIVES HIS PENITENT COMPANIONS

on their return to New Island

Isabella. In 1817 Desaulses de Freycinet set out in the *Uranie* on a scientific expedition which was to be also a voyage nearly round the world.[1]

He had with him his young wife, Rose Marie, married just before they started. She was very gentle and reserved and held but a poor opinion of her own courage, though she was almost the first French woman to circumnavigate the globe.[2]

The voyage was nearly over when, early in February, 1820, the *Uranie* received damage in Le Maire Strait, and Freycinet decided to take refuge at the Malouines. On the 14th of February under a cloudless sky and with a favourable breeze the *Uranie* was entering Berkeley Sound from the north—all on board looking forward to rest after long labour—when she struck violently on a submerged rock off Volunteer Point. She was got off, but so badly holed it was impossible to save her, so she was beached. No lives were lost—even most of the botanical collections were saved—Madame de Freycinet, with her husband, being the last to leave the ship. No other vessels were at that time at Port Louis. There, some two months later, came the American frigate *General Knox*. The *Jane*, of Leith (Captain James Weddell, formerly in the Navy), was at the same time lying in Port Egmont harbour, not knowing of the disaster to the *Uranie*. Later Weddell moved the *Jane* to West Point harbour, where another schooner—American—was lying. Then came the whaler *Sir Andrew Hammond*, and an Argentine vessel—the *Mercury*. This last Freycinet bought, changing her name to *La Physicienne*, and set sail in her for Montevideo the 27th April. Three days

[1] Desaulses de Freycinet (Louis Claude), *Voyage autour du monde . . . sur les corvettes de S.M.* L'Uranie *et* la Physicienne *pendant les années 1817–20.* 9 vols. Paris, 1827, 24, 44, 26.

[2] She died a few years later in Paris of cholera, caught from her husband while nursing him.

before she sailed Weddell visited Freycinet on board her to express regret that he had not sooner known of the latter's misfortune. Freycinet introduced Weddell to his wife and presented him with a little vessel made out of the launch of the *Uranie*.

Meanwhile, manned by a scurvy-eaten, mutinous crew, a storm-battered frigate of the United Provinces of South America (the uniform of which had an odd resemblance to that of the navy of Great Britain) had left Buenos Aires in March and was slowly battling her way to Port St. Louis. In command of her was Colonel Jewitt, of the United Provinces' Marine, sent to take 'formal and solemn possession' of the Malvina Islands on behalf of his government. The solemnity of the occasion was somewhat marred by the dilapidated appearance of his frigate, the loss of 80 men (out of 200) sick or dead, and the fact that the *Heroina* was six miles below the right anchorage—to which Weddell kindly piloted her. All these small disadvantages were atoned for by Jewitt's magnificent air. He found in the harbours he came to claim the following vessels [1]—very much at their ease.

British.		*American.*
Indian	from Liverpool (Spiller)	(From New York and Stonington)
Jane	„ Leith (Weddell)	
Hetty	„ London (Bond)	*General Knox; Eucane; Newhaven; Governor; Hawkins; Fanning; Harmony; Wasp; Free Gift; Hero.*
George	„ Liverpool (Richardson)	
Eliza	„ „ (Powell)	
Sprightly	„ London (Fraser)	

Nearly all were sealing or whaling vessels. Jewitt's first act of authority was to lay claim to the wreck of the *Uranie*. With much urbanity he sent a written intimation to the various shipmasters of the claim made by the Republic, which forbade whaling and

[1] *Colección de Documentos Oficiales . . . sobre las Islas Malvinas.* Buenos Aires, 1832, p. 25.

sealing in her waters by foreigners. He wrote specially to Weddell and, in his letter dated from Puerto de la Soledad, 2 November, 1820, explained his 'desire to act towards all friendly flags with the most distinguished justice and politeness . . .' and, 'as your views do not enter into contravention or competition with these orders, and as I think mutual advantage may result from a personal interview, I invite you to pay me a visit on board my ship. . . .'[1]

Weddell walked the seven or eight miles which separated him from Port Louis and was received by Jewitt with great politeness. 'He assumed an air of power and authority beyond my expectations,' said Weddell. 'He told me his business was to take possession of the Falkland Islands for his government, that everything necessary for an establishment would be procured from Buenos Aires.' A few days later—though his men were dying of scurvy at the rate of five or six a day—Jewitt at Puerto de la Soledad took formal possession of the islands, ran up the colours of the republic, fired a salute of twenty-one guns, and sent out a note—dated 9 November, 1820—advising foreign governments of the new order of things. If the powers received his note they made no sign. The United States acknowledged the independence of the Argentine Republic in 1823, Great Britain not until two years later when Woodbine Parish, appointed chargé d'affaires to the new Republic, was instructed by Canning to sign a commercial treaty between the two countries 2 February 1825.

In 1823 the Republic appointed as governor of the Malvinas Don Pablo Areguati. The same year Don Jorge Pacheco, in return for services rendered, was granted by the Republic—relying on the tacit consent shown by foreign powers for the past three years—thirty leagues of land in East Falkland and all fishing

[1] Weddell (J.), *A Voyage towards the South Pole*. 1825, p. 104.

rights. An attempt at colonization was made under the direction of Robert Schofield. But the effort ended disastrously, and Schofield died in poverty two years later. Louis Vernet then took up the task. Justice has never been done to his efforts. Of French birth, a merchant of Hamburg, South American by naturalization, he took over an expedition to East Falkland in the *Alerta* in 1826. But what he hoped to accomplish in one year took him five. His companions lost heart and sold him all their shares. He bought three boats in succession, and lost them; freighted five, and one was lost. Undaunted he held on, making plans for the foundation of a great national fishery. In one year he supplied the Brazil market with eighty tons of salted fish, much of it being rock-cod, which the Brazilians esteem more than any other fish. He also improved the breed of wild cattle by importing fresh stock.

In order to give the colonists—then about ninety persons—an effective guarantee of their rights, he asked his government for a warship. The Republic, not being able to give this, issued 5 January, 1828, a decree granting him the whole of the islands of East Falkland and Staten Land, with the exception of the land granted to Pacheco and ten square leagues reserved for government in the Bay of San Carlos. The colony was freed from taxes for twenty years and for the same time granted exclusive fishing rights ('la pesca exclusiva en todas las Malvinas, y en la costa del continente, al sur del Rio Negro') in all the Malvinas and on the continent, south of the river Negro, provided that within three years a colony should be established.[1]

By a later decree of the 10th June, 1828, Vernet was appointed Governor of the Malvinas and Tierra del Fuego, and a year later was solemnly installed as such with 'salvoes of artillery'. By that time he was

[1] *Colección de Documentos Oficiales . . . sobre las Islas Malvinas.* Buenos Aires, 1832, Document xxix, fo. 25 a.

issuing paper money in the islands. So hopeful seemed the prospect that two Englishmen—G. T. Whitington and Lieutenant William Langdon, R.N., sailor and sheep farmer [1]—obtained from Vernet large grants of land and fishing privileges upon East Falkland and Staten Island. Vernet was then living with his young wife at Port Louis; other members of the colony being a German family, Matthew Brisbane—who formerly served under Weddell as commander of the cutter *Beaufoy* and had then joined Vernet in a sealing contract—and William Dickson, an Irishman, who had been on the islands for the past five years and worked under Vernet as his store-keeper. A British naval officer describes Vernet's home—the long low house with its thick stone walls and welcome library of English, German, French, and Spanish works; and Madame Vernet—a Buenos Airean—and her music.[2]

When the decree of the 10th June became known in Buenos Aires Woodbine Parish immediately referred the matter to his Government, and was instructed to lay claim to the islands as a British possession. To the protest made by him in November, 1829, General Guido, then Minister of Foreign Affairs in Buenos Aires, promised to give special attention; but the matter dragged on and dropped, it seemed, into oblivion.

Vernet remained on East Falkland, throwing himself eagerly into the task he had set himself. The depredations committed by foreign sealers and whalers increased to such an extent that in August, 1831, he determined to take strong action, and arrested the American schooners *Breakwater*, *Harriet*, and *Superior*,

[1] He commanded the *Hugh Crawford* and *Thomas Laurie*, which constantly touched at the Falklands in their trade from New Holland; he was also a successful sheep farmer in Tasmania.

[2] Fitzroy (R.), *Narrative of the surveying voyage of H.M.S.* Adventure *and* Beagle *between the years 1826–1836*. London, 1839, ii. 266.

then sealing at Puerto Salvador, to the north-east of Port Louis. The *Breakwater* escaped back to her port, arriving at Stonington (Connecticut) the 24th October. Davison of the *Harriet* agreed to go to Buenos Aires to be judged, while the *Superior* was allowed to continue sealing under certain conditions.

The *Harriet*, with Vernet and his family on board, reached Buenos Aires 19th November (1831).[1] Davison hurried off to the United States consul—George W. Slacum (or Slocum). The Argentine Government declared the *Harriet* to be a lawful prize. Slocum retorted that the republic had no jurisdiction over the Malvinas and no authority whatever over the free citizens of the United States; and, knowing the United States corvette *Lexington* to be at Montevideo, promptly summoned her to back up his assertion. The *Lexington* came to Buenos Aires. Her commander, Silas Duncan, being a high-spirited young man on fire to resent the most shadowy affront offered to his country, announced his intention of proceeding at once to the Malvinas for the protection of the citizens of the United States. He did not even wait to make sure whether any citizens of the United States were in the islands. The crew of the *Superior* were sealing and certainly in no imminent danger. He merely waited to demand of the Argentine government that Vernet should be delivered forthwith into his hands, setting forth his request in the following manner:

'Buenos Aires, Dec. 7, 1831.

'Sir,

It has been proved to me under oath that Louis Vernet, living in this place, sacked the schooner *Harriet*, an American ship, of almost her whole cargo she lying in the Islas Malvinas. I write to ask that the said Louis Vernet, being guilty of piracy and robbery, should be handed over to the United States for

[1] Groussac (Paul), *Les Îles Malouines*. Buenos Aires, 1910, p. 418 (Republica Argentina, Anales de la Biblioteca Nacional).

judgment, or that he be arrested and punished by the laws of Buenos Aires . . .'[1]

His demand not being complied with, Duncan extricated Davison from the Buenos Airean authorities and took him as his pilot to Puerto de la Soledad, which was reached 28th December, 1831. It is difficult to divine why this young man's zeal for the honour of his country should make him sail under the flag of another nation. But all witnesses are agreed that the *Lexington* entered Berkeley Sound under the French flag, not hoisting American colours until before landing. When Duncan did land he destroyed in a few hours the work of years. He spiked all the guns that were on the island, burnt all the powder his men did not use in hunting; used violence to all who resisted his demands, and proclaimed the island free of all governance. Finally, after arresting nearly every one, he held as prisoners on board the *Lexington* Matthew Brisbane and six Argentine men, all of whom he loaded with abuse and handcuffed, and took to Montevideo. According to the sworn declaration of some of the witnesses they were handcuffed day and night while they were in port, at night while they were at sea. They also declared the food provided was insufficient—but three ships' biscuits and a pound of meat (*tres galletas et una libra de carne*) between six men.[2]

In pursuance of President Jackson's promise[3] . . . 'I shall without delay send a minister to inquire into the nature of the circumstances, and also of the claim, if any, that is set up by that government to those

[1] *Colección de Documentos Oficiales . . . sobre las Islas Malvinas.* Buenos Aires, 1832.

[2] Ib. Apéndice . . . que contiene el esclarecimiento de los hechos perpetrados por el comandante Silas Duncan . . . Buenos Aires, 1832.

[3] *Addresses and Messages of the Presidents of the United States to Congress.* New York, 1837. Jackson's Third Annual Message, December 6, 1831, p. 322.

islands', Francis Baylies came as chargé d'affaires to investigate matters in February, 1832. But his methods were so far from satisfactory that de Maza, the Argentine minister, took the matter straight to Washington, narrowing the question down to that of illegal fishing, and demanding an indemnity for the outrage which had ruined the budding colony.[1] No satisfactory answer came from Washington—no answer was to come for over fifty years.

Vernet filed an answer—a remarkable document [2]—to Baylies's accusation, which is dated 10 August, 1832. He never saw his islands again. Brisbane returned there, making a brave effort to set the ruined settlement on its feet once more. The 10th September, 1832, Major Juan Esteban Mestivier was appointed Governor of the islands during Vernet's absence. Mestivier went out on the schooner *Sarandi* commanded by Don José Maria Pinedo, which vessel was to be attached to the service of the colony. She had on board her a detachment of fifty soldiers who were to settle on the land at San Carlos reserved for the Government. The Argentine Government wished to make of the islands a *presidio* (a term having the double significance of a frontier garrison and penal settlement); and the men were for the most part deportees, serving a term of punishment. Either unjustly treated or insufficiently guarded they revolted the following December, under the leadership of a negro sergeant, and murdered Mestivier the Governor.

Pinedo, with the crew of the *Sarandi*, assisted by some French whalers, was engaged in chasing and capturing the murderers (seven were afterwards condemned to death; while Gomila, Mestivier's subordinate, was court-martialled for supineness); all in

[1] Groussac (Paul), *Les Îles Malouines*. Buenos Aires, 1910, p. 423.
[2] *Colección de Documentos Oficiales . . . sobre las Islas Malvinas*. Buenos Aires, 1832, Doc. xxix.

the poor colony was uproar and ugly passion, when there suddenly appeared in Berkeley Sound—an embodiment of dazzling order, discipline, and restraint —H.M. sloop *Clio*.

The reason of her appearance was very simple. No notice having been taken of the protest made by Woodbine Parish three years previously, the *Clio* (J. J. Onslow, commander), and the *Tyne* (Charles Hope) had been dispatched to take possession of the colony. The *Clio* went first to Port Egmont, arriving there the 20th December. Finding the place desolate and abandoned Onslow made some attempt to repair Fort George. He also put up a signal post with an inscription dated 23 December, 1832, stating that the islands belonged to Great Britain; surveyed Brett's Harbour, Byron's Sound, Keppel Sound as far as Point Bay—some sixty miles from the *Clio's* anchorage; left a message in a sealed bottle for the *Tyne*, and after ten busy days sailed for Berkeley Sound, arriving there the 2nd of January, 1833.

It must be admitted that the *Clio*'s arrival was far from happily timed. Not that her commander was discourteous. Captain Onslow's courtesy was flawless, it was also winter-cold. He went to the *Sarandi* to call on Pinedo and explain the reason of his presence; and when that officer agitatedly protested against the gross outrage to be committed by a friendly nation, and refused to consent to so unjust a pretension, Onslow, quite unmoved, withdrew, intimating to Captain Pinedo that he (Onslow) would reply to him in writing.

At four that afternoon the Commander of the Buenos Airean forces received from H.M. Sloop *Clio*, dated 2 January, 1833, the following letter:

'Sir,

I have to acquaint you, I have received directions from His Excellency the Commander in Chief of his Britannic Majesty's ships and vessels of war, South American station,

in the name of his Britannic Majesty, to exercise the " rights of sovereignty over these islands ". It is my intention to hoist, to-morrow morning, the national flag of Great Britain on shore, when I request you will be pleased to haul down your flag on shore, and withdraw your forces, taking with you all stores, etc. belonging to your Government.

I am Sir,
Your most obedient humble servant,
JOHN JAMES ONSLOW, Commander.' [1]

After, as may be imagined, a broken night, Pinedo went on board the *Clio* between five and six the following morning ' personally ' to protest. Onslow, polite as ever, explained that he could not defer the execution of his orders. Pinedo left the *Clio* declaring Great Britain responsible for the insult and violation of the dignity of the Republic. He further announced that he would withdraw, but would not strike the flag. He then returned to the *Sarandi*, prohibiting those on shore from lowering the Argentine flag, and conferred the command of the colony on Juan Simon, *capataz* of the gauchos. At nine, the same morning, three boats manned by seamen and marines from the *Clio* landed, put up a flag staff at the house of William Dickson, hoisted thereon the British flag, struck that of the Argentine Republic (which was still flying) and delivered it to the *Sarandi* ' by an officer sent for that purpose '.

Captain Pinedo was ready immediately to depart from the scene of insult. The weather, unfortunately, detained him for nearly two whole days within the sight—or if not sight the bitter consciousness—of the British flag. At last on the evening of the 5th the *Sarandi* sailed away to Buenos Aires, Pinedo at heart, perhaps, not sorry to withdraw. The islands seemed a dreary place, stained now with bloodshed, a fight against odds for them would be less heroism than folly.

[1] *Annual Register*, 1833, p. 374.

Yet did his Government find fault with him for too much caution. The young Republic was all ablaze with indignation at the insult to her dignity, and her resentment lasted for long.

The nominal assertion of British authority over the islands did more harm than good. Pinedo—who did hold the reins of government in some sort, though not, perhaps, very firmly—was sent away, with the *Sarandi*, which was at least a tangible representation of law and justice; and replaced by—a pole flying the British Flag. The *Clio* left a few days after banishing Pinedo; the *Tyne* came into Berkeley Sound, saluted the flag, and sailed away again.

A storm swept over the islands from January 12 to 13, wrecking the French whaler *Magellan*, the crew of which came on shore. They were still there, living in tents, when Fitzroy brought the *Beagle*[1] into Berkeley Sound on the 1st of March. In his Narrative[2] Fitzroy gives a sinister picture of the settlement ruined by the violence of Duncan, of the inhabitants, a handful of honest settlers, sealers and whalers of various nationalities, Indian convicts left by Vernet, Gauchos, proverbial for brutality—almost all wild, selfish, drifting from bad to worse. The conduct of certain men shines out by contrast. They were Matthew Brisbane, William Lowe, and William Dickson; seamen, adventurers, pioneers, they were of those who dare all, and, in a sense, lose all, yet hand on their heritage undismayed. Brisbane, once commander of the *Beaufoy*, was struggling to gather up the fragments of the colony's lost prosperity and to retrieve some last shred of what Vernet owned. Lowe, who lived with

[1] Serving as second lieutenant on board her was young Bartholomew James—afterwards Admiral—Sulivan; he was on board the *Beagle* throughout her voyage.

[2] *Narrative of the surveying Voyages of* . . . Adventure *and* Beagle. 3 vols., 1839, ii. 269.

Brisbane, was a Scotsman, formerly master of the *Unicorn*, which schooner he sold to Fitzroy who named her the *Adventure*. Some of the crew of the *Unicorn* remained on the island, one being Henry Channon.

It might be thought the British Government would have seen it was to their interest to give Brisbane a helping hand. Instead, they left him and others to be done to death. True, some seventy years later Bishop and Governor came to say pleasant words on Brisbane's grave, but a little help during his life would have been more serviceable.

Early on the morning of the 26th August, 1833, Lowe left the settlement in a whale boat with four hands to go sealing. Without any warning, as though they had only been waiting for this, the five Indian convicts (Manuel Gonzales, Luciano Flores, Manuel Godoy, Felipe Salazar, and Lattore), with three Gauchos (Antonio Rivero, José Maria Luna, and Juan Brasido), armed with muskets, pistols, swords, dirks, and knives set off for Brisbane's house and murdered him. A settler who went to warn him of danger found his body on the floor. 'He appeared to have been making towards his pistols before he fell and there was a smile upon his countenance.'[1] By that time Juan Simon, *capataz* of the Gauchos, was dead, and Don Ventura Pasos left for dead. But that unhappy victim (one authority describes him as French, another as Spanish) though shot through the throat, with his head cut open and some of his fingers hacked off by a sabre, managed to reach a house some sixty yards away. On their return from shooting William Dickson (once Vernet's store-keeper, and to whom Onslow had entrusted the British flag) and Anton Wagnar, a German settler, the murderers missed Pasos's body. They hunted until they found him,

[1] *Nautical Magazine*, 1834, iii, pp. 436 et seq.

finally dispatching him with two or three musket shots. They then plundered Brisbane's house, after tying his body to a horse and dragging it some distance away. They then rifled Dickson's store; robbed the house of Faustin Martinez—one of the men sealing with Captain Lowe—and, being by that time in possession of nearly all the arms and ammunition in the place, drove the horses and cattle up-country, laden with their booty. The remaining thirteen men and three women [1] (one of whom, Carmelita, had three children) after two nights of terror (no one seemed to think of resistance) fled with what they could carry to Hog Island in Berkeley Sound.

They were marooned on the island for two months, and lived on birds' eggs. Lowe, who returned from his sealing expedition a fortnight after the murders, went on Kidney Islet. Thus the eight murderers were left in undisputed possession of East Falkland.

No relief of any sort came to the unfortunates on Hog Island, nor was their plight known to the outside world until the 23rd October, when the sealer *Hopeful* of London, entered Berkeley Sound. She had on board a naval officer, Henry Rea, who set to work in a businesslike way to provide them with food. But not liking, as he explains,[2] the appearance of many on Hog Island, he, in company with Lowe and two armed boats, went to Port Louis where trunks and boxes lay broken open and everything in the houses ransacked and cut to pieces. Finding the mangled body of poor Brisbane they gave it decent burial as far as they could, and also secured the graves of the other victims. Rea then hoisted an English flag at the flag-staff 'which I intend to leave flying'. But,

[1] One of them, Antonina, was alive when Captain Parker Snow came to the islands twenty years later; she was then working for the Falkland Islands Company at Hope Place. She is referred to on p. 108.

[2] *Nautical Magazine*, 1834, iii. 376.

evidently not placing so implicit a faith in the symbol as did the Admiralty, Rea gave the authorities the common-sense warning [1] 'I feel convinced that if an English ship of war does not arrive here soon more murders will take place'. After watering, the *Hopeful* cruised for a few days in the track of vessels bound round Cape Horn and then sailed southwards.

Rea's letter was long in arriving at Rio. The news reached England almost as soon by the *Swallow*, which reported speaking on the 11th December the cutter *Susan Anne*, sealer (Captain Ferguson), which informed her that people had been murdered at Port Louis, giving the names of some of the victims. The *Devonport Telegraph* loftily rebuked such idle chatter when the report appeared in the press. 'We have ourselves', announced the journal, 'accounts from the flag-ship [2] on the South American station to the 12th December, when the Admiral had not heard of any such an occurrence although it is said to have taken place on the 26th August previously . . .' and further declined to admit the existence of any naval 'commissioned officer' named Matthew Brisbane.

When the news in Rea's letter reached Rio there was lying there H.M.S. *Challenger* (Captain M. Seymour). She had returned on the 8th December, with orders to proceed in a fortnight's time to the Pacific, calling first at the Falkland Islands to land Mr. Smith, late first lieutenant of the *Tyne*, appointed governor of the Falkland Islands, with a salary of seven shillings a day in addition to his pay as a naval lieutenant. He was to be accompanied by four seamen, volunteers, reinforced by a party of Royal Marines.[3] On hearing

[1] In a report dated Johnson's Harbour, East Falkland, Monday, November 18, 1833, and addressed 'to Rear-Admiral Sir M. Seymour; any British Consul; or, the Commander of any British Ship of War'.

[2] H.M.S. *Spartiate*.

[3] *Nautical Magazine*, 1834, iii. 116.

of the murders the *Challenger* left for the Falklands immediately, reaching Berkeley Sound 9 January, 1834.

When the party from the *Challenger* landed at Port Louis they were met by Henry Channon, already referred to as once serving on the *Unicorn* under Lowe. Channon was afterwards confined on board the *Beagle*, under suspicion, says Fitzroy,[1] of being an accomplice of the murderers, though not an active agent in the plot. Against this assertion may be placed the following fact. G. T. Whitington appends to his monograph on the Falklands a weather chart kept by Channon for nine months, the weather being noted three times a day, viz. 7–8 a.m., noon, and 4–5 p.m. It was kept—dates and places are instructive—from 9 November to 26 August (the day of the murders) 1833, at Port Louis, breaking off after 7 a.m. that day. It recommences on Turf Island (after the peaceable members of the colony had left the murderers in possession of East Falkland) the 27th August, 1833, to the 9th of January, 1834—the day of the *Challenger*'s arrival. One piece of evidence should be weighed against the other; it seems improbable that the man who had the qualities necessary for the compilation of such a journal, under such adverse circumstances, would be the accomplice of murderers.

Channon told Captain Seymour that the murderers then held as hostages two Gauchos, who would be killed if Channon did not return to them. He further said that Luna, one of the guilty Gauchos, was willing to turn King's evidence. On seeing that the *Challenger* was a man-of-war the murderers had all fled inland. One of their number was killed by his friends, Luna received his pardon; there remained therefore but six outlaws to be dealt with. Lieutenant Henry Smith was anxious to set his kingdom in order, and capture the murderers. He set off after dark with marines

[1] *Narrative of* Adventure *and* Beagle . . . 3 vols., 1839, ii. 331.

and two boats' crews and caught not a glimpse of them, though they saw him. On the sixth day after his arrival he made another effort, and, with four midshipmen and twelve marines, marched into the interior. They were away four days, marched for 100 miles, through bog, in torrential rain, and returned empty handed.

Seymour could stay no longer, he left six marines and the *Challenger* went her way. Rea, of the *Hopeful*, returned for a short time.[1] Smith put a ruined house to rights, fenced in a garden, tamed some cows, and, finally, at the beginning of March, captured the outlaws, who were marched down to Port Louis. When Fitzroy in the *Beagle* reached Berkeley Sound the 10th of March he took them on board—Rivero was put in irons, Channon confined to the ship, and Luna left at liberty; then all were taken in a hired cutter to the flag-ship at Rio.[2] The *Beagle* remained at the islands until the 6th of April.

[1] Whitington quotes a week's temperature taken in the shade by Lieutenant Rea at Berkeley Sound, 22–8 January, 1834.

[2] According to Whitington they were then taken to England in H.M.S. *Conway* and imprisoned in Newgate.

VI

UNDER BRITISH RULE, 1834–54

Henry Smith of the *Tyne* — Survey by the *Arrow* — The question of a penal settlement — Early Colonial Policy — The case of the *Hudson* and *Washington*.

Lieutenant Henry Smith remained at his post for over four years, doing his best to repair the damages to the islands inflicted by Duncan and made worse by the outlaws. He developed, as far as he could with the scanty means at his disposal, the natural resources of the settlement, so that fresh vegetables, milk and beef were soon to be had in plenty. He also found time to record the temperature at Berkeley Sound four times a day from August, 1835, until August, 1836.

He warned all foreign vessels touching at the Falklands to desist from killing the wild cattle (which were crown property); and from fishing, whaling, and sealing either at the islands or in their waters.

In 1838 the Falkland Islands Association (which had put forth its first requisition to the Government soon after 1834 on the expediency of colonizing the islands) [1] empowered G. T. Whitington to act for them, 'to adopt those measures which he may deem requisite for the efficient carrying out of this great national object'. The Association afterwards differed sharply from the Colonial Land and Emigration Commissioners.

Among those interested in the colonization of the Falklands at that time was Thomas Cochrane, then

[1] This was signed by more than 100 merchants, ship-owners, and traders of the port of London and elsewhere. (*Fisher's Colonial Magazine*, New Series, 1845, ii. 307.)

10th Earl of Dundonald, the very versatile genius and inventor of the 'secret war plan'. He had just finished fitting out a little steamboat with a rotary machine which he wanted the Admiralty to introduce into national ship building. Ever disliking waste he wrote to Whitington (November 9th, 1834) on the Falkland Islands:

'The old vessels of war, which are now annually sold and broken up . . . and the cast stores periodically disposed of for a trifle (all of which are good enough for ordinary purposes) would effect this object' [The colonization of the Falklands] 'in an ample manner . . . the undertaking cannot be of great expense compared to the advantages that may be fairly anticipated in a commercial point of view, wholly independent of the value of these places in war, as a naval station.' [1]

Lieutenant Smith's son appears to have succeeded Brisbane as Vernet's agent, looking after his personal property in the islands. This property was delivered into Smith's hands by his son in 1838,[2] and was subsequently appropriated by the British Government to public use. Vernet sent in his claim to the Government for £3,300 arising from the sale of beef at 2*d.* a lb., the product of 800 oxen, the hides of which were valued by London brokers at 30*s.* each. He also claimed for 10 stone houses he had erected, which from 1834 to 1844 served for the accommodation of British governors and garrisons; 60 hunting horses worth £100 each; about 400 head of tamed (fat) bullocks; about 1,000 seal skins; all of which was worth £14,296. Apparently the British Government acknowledged his claims, and instructions were given to the naval authorities in 1838 with regard to them,

[1] Whitington (G. T.), *The Falkland Islands*, 1840, p. 30.

[2] Letters from M. Louis Vernet to the Right Hon. Lord Stanley, Secretary of State for the Colonies, concerning his claims on the British Government, and the neglect of the Colony of the Falkland Islands [1858], p. 14.

but were not carried out; so that, as will be seen, twenty years later Vernet, ageing, impoverished, broken down by public harshness and private grief, came to London vainly trying to obtain his rights.

Smith very wisely took Vernet's advice on various points of his administration, more particularly in regard to cattle-taming; so that when he left the island in the summer of 1838 he gave up to his successor 350 head of tamed cattle, leaving the settlers with numerous tamed swine, plenty of poultry, and two schooners, their own property.

He was succeeded by another naval lieutenant—Robert Lowcay—who left Rio de la Plata in August, 1838, in the *Sparrow* with sheep, fowls, and various seeds for the islands. In July the same year the Admiralty dispatched the *Arrow* under the command of Lieutenant B. J. Sulivan. When the *Beagle* reached England in 1836 her second lieutenant had married, and after a year on shore went out in the *Arrow*, leaving Falmouth 9th July, 1838, his brother accompanying him, to complete the survey of the islands. Sulivan's first officer was Lauchlan Bellingham Mackinnon, whose account of the islands [1] is frequently referred to in these pages.

In pursuance of his scheme for the colonization of the island G. T. Whitington prepared a report on them, copies of which he sent to his friends the late governor Henry Smith, and Captain Onslow. Smith, in a letter dated 3 Lyon's Inn, 17th December, 1838, replied: 'After living four years and a half on the Eastern Island . . . so highly do I think of the Islands . . . that I . . . would gladly take an active part in forming a colony and reside there with my family. The small settlement that now actually exists at Port Louis, East Falkland, though the inhabitants are

[1] *Some Account of the Falkland Islands from a six months' residence in 1838 and 1839.* London, 1840.

there only on sufferance, without an inch of ground they can call their own, are thriving rapidly, which speaks volumes.'[1]

Sulivan's survey of the coasts added much to the knowledge of the islands. Stanley Harbour was before that unsurveyed, unknown. The *Arrow* reached Port Louis the 15th of October, and was not impressed by its appearance. It consisted of two small houses (in one of which lived Governor Lowcay) and three or four mud huts. Later the *Arrow* lay in Port Pleasant —a branch of Port Fitzroy. Mount Pleasant was climbed the 30th of November by Sulivan and Mackinnon—the climb not being made any the easier by the encumbrance of the theodolite-stand. 'The temperature', says Mackinnon,[2] 'was bitterly cold, although a dead calm; and large icicles were hanging in various fantastic shapes from all the overhanging points of rock . . . not a single noise disturbed the death-like silence, neither was the solitude invaded by any other living object except ourselves, excepting that a huge eagle alighted to plume himself on a pinnacle within 12 yards of the theodolite.'

The weather of the year 1838–9 seems to have been very severe. Mackinnon speaks of gales and snow, though it was summer; and Lowcay in his report to Lord Minto describes the winter—June to October, 1839—as unusually severe. All the high lands were covered with snow, and drift snow remained for three weeks in the hollows. There does not seem to have been much sickness among the 45 settlers (25 men, 10 women, 10 children). The only doctor and nurse was a woman—Antonina Kinney. Lowcay says she 'came to claim 14 head of cattle given to her for services rendered in the Colony, as per the certificate

[1] Whitington (G. T.), *The Falkland Islands*. 1840, p. 48.

[2] Mackinnon (L. B.), *Atlantic and Transatlantic Sketches, afloat and ashore*. 2 vols., 1852, ii. 223, 229.

of Lieutenant Smith . . . found she was a very humane and good character, and particularly useful in the Colony, as a doctor and midwife. The grant was stated to be for services rendered to the sick.' He represents the settlers as distressed for want of clothing—particularly shoes and stockings. As he also reports having a thousand hides in store it may be asked why there should be a lack of shoes.

The two schooners belonging to the settlers were out whale hunting, he says, but were expected hourly ; as were also the South Sea whalers. It was still necessary to warn off the crews of foreign vessels from sealing and whaling, and cattle hunting in the islands. W. J. Scott, second officer of the *Sparrow*, addressed a public prohibition to the American vessel *General Williams*, and her tender. It was almost impossible to enforce obedience. Mackinnon suggested that a couple of cutters, rigged as ketches, moving about, would scare away the thieves, and also prevent many fraudulent ' shipwrecks '. He asserts that, owing to the undeservedly bad name borne by the coasts of the Falklands, ' ships are purposely lost there to defraud underwriters. Many instances are known of vessels being " cast away " in the most unaccountable manner. In several instances ships thus *lost* in some of the basin-like harbours have been sold for a mere song, recovered at little expense, and are still bearing rich freights across the seas ! ' [1]

In 1839 Lieutenant Lowcay was replaced by Lieutenant Tyssen. The following year Whitington's brother—J. B. Whitington—took out two ships loaded with materials and emigrants. Lieutenant William Langdon, R.N., sailor and sheep-farmer, wrote to Whitington from Devonshire offering to go out to the Falklands, without remuneration, to establish a settle-

[1] Mackinnon (L. B.), *Atlantic and Transatlantic Sketches*. 2 vols. London, 1852, ii. 185.

ment there; while some of his friends offered to invest £10,000 in the scheme. With all this surge of private enterprise thrusting the islands forward it was only to be expected that official interest in them should be quickened.

There began to be much talk, and more writing, on the subject of transporting convicts to the Falklands. The Colonial Land and Emigration Commissioners strongly recommended the islands (of which they had no personal knowledge) 'as a place of transportation, perhaps more eligible than any other British Possession'. Several reasons were put forward:

> The numerous detached islands 'offer remarkably well-adapted positions for permanent stations, say, for a penal settlement; whilst the Western combines those advantages which are requisite to insure the practical workings of the forced labour and subsequent reformed settlement system, which would eventually render the East Falkland a flourishing free colony, wholly disconnected with the convict establishment.... The distance of the islands from the nearest main ... renders an escape ... hopeless. Here are no forests or woods to serve as places of concealment, but the most extensive and varied possible facilities for classification ... every grade of convict may be placed in disconnexion with another....'[1]

The scheme, however, was never carried out.

Shortly before the closing of the Parliamentary session for 1841 Lord John Russell, then Colonial Secretary, obtained an Act for the establishment of a government in the Falklands with legislative power for three years on the following scale: A Governor, £600; Magistrate, £400; Clerk, £150; Surveyor, £300; Labourers, £500; Stores, £800; Building works, £1,000; Total, £3,750.

The governor named was Lieutenant Richard Clement Moody, R.E., whose appointment was dated

[1] *Reasons for the formation of a Convict Establishment at the Falkland Islands.* London (1845 ?).

23 August, 1841.[1] A letter under this date was received by him from Lord John Russell, instructing him

'to preside over a settlement to which Her Majesty's Government rests its claim on the ground of prior occupation only. . . . You will turn your attention, immediately upon your arrival, to the means of administering law and justice within the colony. You will inform the inhabitants of the Falkland Islands by proclamation that the law of England is in force within the islands. . . . In the commencement your government must be one of influence, persuasion and example rather than of direct authority, but in the exercise of moral rather than legal powers you must, of course, be guided by your own discretion, rather than by any precise instructions. . . .'[2]

Moody and his staff sailed in September, 1841.

The Colonial Land and Emigration Commissioners were authorized to sell lands in the Falkland Islands six months after the staff had sailed. These Commissioners were most unpopular with the colonists —as was the whole of the Government's colonial policy. In 1840 there appeared in the *Colonial Gazette* a series of papers which formed the basis of a trenchant article in the *Monthly Review*[3] on Responsible Government for the Colonies: 'the patronage of the Colonial Office is', observed the writer, 'the prey of every hungry department of our Government. On it the Horse Guards quarters its worn-out General officers as Governors; The Admiralty cribs its share; and jobs which even Parliamentary rapacity would blush to ask from the Treasury, are perpetrated with impunity in the silent realm of Mr. Mother-Country.' He describes 'men with colonial grievances' as 'worn

[1] Blue Books. The original reports from the Falklands, 1846–70, are in the Public Record Office (C.O. 81, 1–25); the notes for those years are based on these reports except where otherwise stated.

[2] *Fisher's Colonial Magazine*, New Series, 1845, ii. 148.

[3] *The Monthly Review*, 1840, vol. ii (New and Improved Series), pp. 219–33. Pages 279–83 of this volume contain a favourable review of Mackinnon's *Some Account of the Falkland Islands*.

by hopes deferred and the listlessness of prolonged dependence. . . . The grievance originated probably long years ago, and, bandied about between colony and home, by letter or by interview, has dragged on its existence.' Those claiming long-deferred redress waited in rooms which, with their old and meagre furniture, were known to the initiated as *The Sighing Rooms*. The *Hong-Kong Gazette* of 21 April, 1842, commented with some bitterness on the situation of the Falkland Islands.

'I happen to know . . . that a numerous and influential party' [which, no doubt, included the brothers Whitington] 'were willing, able, and ready to have colonized these isles, free from all expense to the country, but for the interposition of these marplots the Commissioners. . . . Did either of them ever see a colony, or know one iota of that subject till they were appointed Colonial Commissioners at a salary of £1000 per annum each! Will some of your correspondents inform me . . . of what benefit these young gentlemen have been? . . . Neither individuals or bodies will willingly treat with these Commissioners who require your capital placed in their hands to manage for you . . . to pay from it their own salaries and the costs of their establishments and stud of underlings and crimps, and to select and send out for your farms, flocks, and mechanical purposes, *some poor weavers*. . . .'

When Moody set sail for the Falklands in September it was not to an easy post. The principal colonists had but little desire for a Governor, and Moody was not the man to handle so delicate a situation successfully. It must be admitted, also, that Port Louis was not a prepossessing spot. Commander Allen Gardiner, R.N., who in 1844 founded the South American Missionary Society, was, with his wife and two children, at Berkeley Sound from December, 1841 to March 1842. To him Port Louis presented:

'a very dreary aspect. It was simply a naval station, under the command of Lieutenant Tyssen, of H.M. ketch *Sparrow*, and he was absent surveying another harbour. A few scattered

cottages formed the settlement, and one a little better than the rest was called Government House. No cultivation varied the monotony of the landscape . . . the residents on the island numbered only about twenty men and 3 or 4 women; and the new-comers were much indebted to Lieutenant Cox, of H.M. ketch *Sparrow* who rendered them every friendly help, including the services of a boat's crew to erect a small wooden house which they had brought with them.' [1]

Early in January (1842) Moody arrived and Tyssen retired. To many of the settlers—including G. T. Whitington, who declared that Tyssen was a king compared with Moody [2]—the change was not pleasing. Captain B. J. Sulivan, who left England in April with his wife in the brig *Philomel* to continue the survey of the Falklands,[3] and whose eldest son—James Young Falkland—seems to have been the first British subject born at Port Louis, was, however, on excellent terms with the Governor.

Some excitement was caused in the settlement by the arrival of the Ross Antarctic Expedition—H.M.S. *Erebus* (Captain Ross) and *Terror* (Captain Crozier). Both ships were damaged by colliding with each other in the endeavour to avoid an iceberg in the South Polar seas. They reached the Falklands on April 5th, 1842. They found the colonists short of flour, so lent them some until the supplies from Buenos Aires should arrive.[4] To repair the damage caused by the collision

[1] Marsh (J. W.) and Waite H. Stirling, *The Story of Commander Allen Gardiner, R.N.* London, 1867, p. 24.

[2] *Fisher's Colonial Magazine*, New Series, 1844, i. 608.

[3] The *Philomel* surveyed the Falklands during the summer months, going to Rio for the winter. In 1845 Mrs. Sulivan and her family were sent home while the *Philomel* became a ship of war, forming part of the squadron which, under Hotham, forced the Paraná. Sulivan's father, Rear-Admiral Thomas Ball Sulivan, had been Commodore on the South American Station from 1836–41.

[4] Ross (Sir James Clarke), *A voyage of Discovery and Research in the Southern and Antarctic Regions during the years 1839–43.* 2 vols., London, 1847, ii. 238.

everything had to be taken out of the ships and placed in a storehouse which, with a stone pier, was built by Ross's men.

Before Moody left London Lord Stanley—who succeeded Lord John Russell as Colonial Secretary—suggested that the seat of government in the islands should be moved from Port Louis to Port William. Moody settled at Port Louis, but asked Captains Ross and Crozier to visit Port William and give him their opinion on its suitability. They went; and recommended that the change should be made, as Port William was more easy of access, having greater depth of water. Moody, however, remained at Port Louis. The relations between Ross and Moody soon grew far from cordial—indeed they became very strained before the *Erebus* and *Terror* left the islands the following September. The young assistant-surgeon of the *Erebus* and botanist to the expedition—Joseph (afterwards Sir Joseph) Dalton Hooker—refused, however, to be drawn into the quarrel; and contrived to remain at once loyal to his captain and on good terms with Moody, feeding his hungry brain in the Government House library with such food as Mrs. Hemans's poems and Milner's *Church History*.[1] The while Ross expended much time and more candles in composing a letter to the Prince Consort.[2]

Although Moody had been advised—officially and unofficially—to remove to Port William, nine months after he arrived at the islands he sent the following report—dated Government House, Port Louis, October 1, 1842—to the Colonial Office:

'My Lord,

I have the honour to report that I have laid out a large town at Port Louis, chiefly round the inner port . . . and I beg

[1] Huxley (Leonard), *Life and Letters of Sir Joseph Dalton Hooker*. 2 vols., London, 1918, i. 131.

[2] *Ut supra*, p. 145.

respectfully to submit for your Lordship's approbation that the said town be named Anson in honour of the celebrated circumnavigator. . . . I also beg leave to add that I have sold six allotments of half an acre each in the said town at £50 the allotment; and one country allotment on Port San Salvador bounded by the irregular shore, consisting of 389 acres at 12*s.* the acre.[1] I have, for the present, credited the colonial treasury with the sum received, but I presume it is your Lordship's intention that I should consider half to be appropriated to the conveyance of emigrants from Great Britain. . . .'[2]

Having laid out Anson—and, indeed, issued paper money there—Moody migrated somewhat suddenly to Port William. Whitington paid the place an overland visit and declared: 'of all the miserable bog-holes in the Falkland Islands I believe Mr. M. . . y has selected one of the worst for the site of the town.' Many of the settlers complained of Moody's high-handed ways; while *Fisher's Colonial Magazine*[3] commented on the absurd system of selecting young and inexperienced Military or Naval officers for colonial governors. 'They know nothing of civil government and are too arrogant to learn . . . [they] become scourges to the Colonists instead of leaders and sympathetic friends.' Moody's government is said to have sent settlers away from the islands to Rio de la Plata; while the heavy fees and harbour dues exacted made masters of vessels shy of calling at the islands. Both Captain Ross of the *Erebus*, and Captain Onslow (formerly of the *Clio*, but at that time in command of the frigate *Daphne*) commented on the retrograde condition of the colony. 'They ought to be called Isles of Relief', was Whitington's opinion, but 'official management makes them deserve to be called Isles of Misfortune.'[4] One

[1] The lowest government price for land was £100 per acre for town and 12*s.* per acre for country lands.

[2] *Fisher's Colonial Magazine*, 1843, iii. 112.

[3] January–April, 1843, ii. 510.

[4] *Fisher's Colonial Magazine*, 1844, i. 608

of those who went his own way, and always seemed to prosper was the American whaling captain, William Horton Smyley—trader, cattle-hunter, navigator, who had been as far south as any man; and after having been on and about the Falklands for the past ten years was at that time using his schooner to bring horses and sheep over to the islands from the Rio Negro.

In 1843 a Colonial Surgeon was appointed; and, two years later, a chaplain, who lived in the school-house. Government House was in course of construction, as were also 'barracks for emigrants'. The prison was a small wooden lock-up room attached to the barracks where were quartered the detachments of 'sappers and miners', and there was one jailer. Two rooms in the barracks served as court house and magistrates' office. The total expenses of the colony in 1846 amounted to £2,080. Besides English coin there was in circulation the gold doubloon.

In 1845 a merchant prince of Montevideo, Samuel Fisher Lafone, desired to purchase land in East Falkland. By an indenture dated 16 March, 1846,[1] 'Her Majesty Queen Victoria' sold to Lafone that part of East Falkland lying south of the isthmus in Choiseul Sound; and all the islands in Choiseul Sound, with all other islands adjacent to the coast, including Beauchêne Island; also one town allotment of half an acre, and one suburban allotment of twenty-five acres in the principal town. For six years and six months from this date Lafone was to have absolute dominion over all wild cattle, sheep, horses, goats, and swine on East Falkland upon a payment of £10,000 down; £5,000 on the 1st of January, 1851; with £5,000 on each succeeding 1st of January until the sum total of £50,000 should be paid. Of the first

[1] Report of the Land and Emigration Commissioners for 1846.

payment £5,000 was devoted to the general services of the colony. Land was reserved by the Government for ports, bridges, &c.

Towards the end of 1847 a force of militia—amounting to eighty-one men—was raised. That year twenty-two ships called at the islands, some being whalers which merely touched at Port William for refreshments.

In 1847 John Bull Whitington, in exchange for land at Anson purchased while the price of rural land was 12*s.* an acre, was allowed by the Secretary of State to exchange his land at Anson for land in Stanley, and to obtain the benefit in land of the reduction in the upset price from 12*s.* to 8*s.* an acre—the total being 583½ acres. That year there was in the jail but one prisoner whose hard labour was digging. His weekly diet consisted of: 7 lb. biscuit; 3 lb. beef; 1 lb. rice; 1 lb. peas, with sufficient water, a diet which might be nutritious but must have been far from interesting. Communication between Great Britain and the Falklands was carried on by means of a small vessel plying between the islands and Montevideo, where it met the mail steamer from England every alternate month.

Early in 1848 Captain Moody (as he had become, and Colonial Governor instead of Lieutenant Governor), was replaced by His Excellency George Rennie, whose appointment was dated 15th December, 1847. He was a former Member of Parliament, and was personally known to Lord Grey, then Colonial Secretary.[1] By that time Lafone's agents were working in Lafonia (as the southern peninsula came to be named); and Whitington still had a small farm of sheep and cattle at the old settlement of Port Louis. Towards the end of 1848 Sulivan, who had returned to England two years previously, obtained leave of absence for

[1] Grey (H. G.), 3rd Earl Grey, *The Colonial Policy of John Russell's Administration.* 2 vols., London, 1853, i. 352.

three years and came out again to the Falklands, anxious to form a company for sheep and cattle farming on a large scale. The idea of the enterprise was very favourably received, and the *Australia* (350 tons) was chartered to take out the stock and materials necessary; while the government sent out the *Nautilus* (200 tons) with materials needful for repairing ships. The same year was distinguished by the calling out of the militia for a week's drill. They found their own provisions, but the authorities kindly furnished each man with a 'Guernsey jacket at eight shillings each, which were returned to store after drill and available for future service'. It is, unfortunately, not stated if the guernseys—or the militia—were ever used again. As a large quantity of gunpowder was somewhat inadequately stored 'in an unsafe wooden building' it was thought advisable that year to begin constructing a powder magazine.

The question of the sovereignty of the Falklands was brought forward again by a protest [1] from the Argentine Minister against Great Britain's continued occupation of the islands [2]; a variation on the theme being introduced by Chile—the sister republics did not get on very well together—who laid claim to the territory of Magellan, including the Falkland Islands.[3] The claim of the Argentine Government was referred to in Parliament by Sir William Molesworth [4] in his speech on the cost of the colonies.[5]

'I will now conclude,' he said, 'the catalogue of the military stations with the Falkland Islands. On that dreary, desolate, windy spot, where neither corn nor trees can grow, long wisely abandoned by us, we have, since 1841, expended upwards of

[1] Frequently repeated since.

[2] *Archivo Americano y Espiritu de la Prensa del Mundo.* Buenos Aires, 1847–51. 1850, No. 5, pp. 18–19.

[3] *Ut supra*, No. 16, 22 October, 1849.

[4] M.P. for Southwark.

[5] Hansard, *Parliamentary Debates* (*Commons*), 25 July, 1848.

£35,000; we have a civil establishment there at the cost of £5,000 a year, a Governor who has erected barracks and other "necessary" buildings well loop-holed for musketry; and being hard up for cash he issued a paper currency, not, however, with the approbation of the Colonial Office.... What I propose to the House is this ... to acknowledge the claims of Buenos Ayres to the Falkland Islands....'

He referred to the delay in rendering and auditing Colonial accounts; those of the Falkland Islands (among others) lying unaudited for four or five years. He complained, also, of the utter ignorance of men and things which the Colonial Office generally displayed in its administration of the colonies. 'The Colonial Government is', he said, 'everything by turns and nothing long', and he condemned the class of men so often chosen for colonial governors.

As was only natural the *Gaceta Mercantil*[1] cordially endorsed so sensible a motion, which recognized the justice of the Argentine's claim to the Malvina Islands, and expressed a fervent hope[2] 'que el Gobierno Britanico participe de las vistas elevadas que tan dignamente ha sometido Sir William Molesworth á la consideración del Parlamento.'

In October, 1849, a detachment of Chelsea Pensioners arrived to replace the sappers. 'They did not', remarked Lord Grey,[3] 'prove by any means such good settlers as those sent to New Zealand.' Thirty Irish emigrants with their families, half of them being Roman Catholics, had previously arrived, and, like the Chelsea Pensioners, were not favourably impressed. Indeed, so disheartened were the Irish by the first sight of the desolate land to which they had been

[1] 22 de noviembre, 1848.

[2] That the British Government may participate in the elevated views so worthily submitted by Sir William Molesworth to the consideration of Parliament.

[3] *The Colonial Policy of Lord John Russell's Administration.* 2 vols., London, 1853, ii. 268.

sent, that, with no priest to turn to for advice or consolation, many returned home or settled in South America.[1]

Reference has been made to Captain Allen Gardiner, naval officer and missionary, who was at Port Louis in 1841–2 on his way to Patagonia, which he reached 23 March, 1842. His great desire was to christianize the Fuegians. After vain attempts to establish a mission among them he returned to England; and, gathering together a devoted band of workers, including three Cornish fishermen, he set out once more, sailing from Liverpool in the *Ocean Queen*, 7 September, 1850. They took with them two mission launches, two smaller boats, and provisions for six months, their destination being Picton Island, on the coasts of Tierra del Fuego, at the entrance to Beagle Channel.

The Committee in England had arranged to send out the following December another six months' provisions, direct to Picton Island. Owing to some difficulty in finding a ship the stores were not sent out until the following April, by the brig *Pearl* which was sailing to the Falkland Islands. It was taken for granted that they would be sent thence to Picton Island by a vessel which—as previously arranged between Gardiner and Lafone—was to sail every month from the Falklands to fetch wood from Tierra del Fuego. No vessel, however, came near Picton Island. Three times Lafone gave directions for a ship to touch there, but his agents failed to obey. At last, finding Captain Smyley at Montevideo, Lafone asked him to go and find out what had become of the missionary party. Smyley, in his schooner the *John Davison*, reached Banner Cove, Picton Island, 21st October, 1851. He ran the schooner into Spaniards' Harbour in a heavy gale, and went on shore to find every member of the heroic band dead of sickness and

[1] *Les Missions Catholiques*. Lyon, 1868–1914. 1876, viii. 506.

starvation. 'The sight was awful in the extreme', he wrote.[1] 'The two captains who went with me in the boat cried like children.'

In Gardiner's farewell letter to his wife and son he commended the South American Mission to their care. In his last letter, dated September 6th, 1851, he wrote: 'I neither hunger nor thirst, though five days without food.'[2] Help came thronging when it was too late. H.M.S. *Dido*, Commander Morshead (a former fellow officer of Gardiner's), left the Falklands for Picton Island, January 6th, 1852, arriving at Banner Cove the 19th. The remains of Gardiner and his comrade were buried close to where they died.

'The funeral service was read by Lieutenant Underwood,' reported Morshead;[3] 'a small inscription was placed on the rock . . . the colours of boats and ships struck half mast and 3 volleys of musketry were the only tribute of respect I could pay to this lofty-minded man and his devoted companions. . . . As a brother officer I beg to record my admiration of his conduct.'

Gardiner's son, Allen W. Gardiner, came out as a missionary in his father's place. Keppel Island was chosen as the head-quarters of the South American Missionary Society; and, with official sanction, was taken possession of, in the Society's name, the 5th February, 1855,[4] by Captain W. Parker Snow, of the Mission yacht *Allen Gardiner*.

A few Fuegians were, later, taken to Keppel Island to be taught and trained. In 1859 the *Allen Gardiner* took a small missionary party from there to Woollya. As they did not return Smyley was sent again to the rescue, and left Stanley in the *Nancy* to find, on

[1] Marsh (J. W.) and Waite H. Stirling, *The Story of Commander Allen Gardiner, R.N.* London, 1867, p. 82.
[2] *Ut supra*, p. 81. [3] *Ut supra*, p. 84.
[4] Snow (William Parker), *A Two Years' Cruise off Tierra del Fuego, the Falkland Islands, etc.* 2 vols., London, 1857, i. 112.

reaching Woollya, that missionary and seamen had been massacred by the natives, and the *Allen Gardiner* plundered. As the latter had not been destroyed Smyley brought her back to Stanley, where she was refitted. She returned to England in 1862; and, the following year, brought out to Keppel Island the new superintendent of the South American Missionary Society—Waite H. Stirling, afterwards the first Bishop of the Falkland Islands.[1]

In his report to the Colonial Office for 1852 Governor Rennie describes the Falklands as making 'steady though not very rapid progress'. In 1851 Lafone's interest in East Falkland had been bought by the Falkland Islands Company, which that year had been incorporated by Charter. Lafone—who was to be retained as local manager, holding 200 shares of £100 in the Company's stock—was to receive £30,000, and the Government £20,000.

The Falkland Islands Company was to be essentially a trading company. Besides Lafonia (about 600,000 acres) it held interests in all the islands in Choiseul Sound, and other islands adjacent, including Beauchêne Island[2]: in all there were 138 islands. Lafonia contained twenty-four good harbours, each of which had been surveyed by the Government. The company undertook to carry the mails between Stanley and Montevideo; while the Government promised to spend upon the improvement of the settlement and passage thither of emigrants the entire sum which they should receive from the sale of lands. Rennie further reported that the master of the barque *Record*, lately in harbour, issued a notice that he would take

[1] The Mission is still carried on among the remnants of the Yahgan and other tribes.

[2] *An Account of the Falkland Islands. To which is added a Preliminary Sketch for the Formation of a Chartered Company to be called the Falkland Islands Company.* London, 1851.

passengers to the gold diggings in Australia at £10 per head; but no one seems to have taken advantage of the offer. There had been—in spite of every man's twenty-five acres of land, right of commonage of 100 acres, rations and fuel for the first year—a good deal of grumbling among the Chelsea Pensioners at their enforced exile; and it required a notice from the Secretary of War that they were at liberty to return to England, if they so desired, to quiet them.

In 1853 the government of the United States appointed 'Captain William Horton Smyley' as their Commercial Agent in the islands. Unofficially he had been acting in that capacity for some years—or, as he puts it: 'For the last twenty years I have had to battle the watch for myself and my countrymen'—and was soon to come very much to the fore.

In the early part of May, 1853, the British Government politely notified that of the United States that they intended to send a force to the Falkland Islands to prevent various depredations caused there 'by persons landing from vessels of the United States'. The notification was duly accepted by the United States, and their Secretary of State—William L. Marcy—issued a notice to masters of vessels and other citizens of the United States resorting to the Falklands to warn them that 'if they commit spoliation in the Falkland Islands they will incur the penalties which may be prescribed therefor'.

Rennie had occasion to complain of depredation the following October, to which complaint Smyley replied[1]: that of his countrymen 'Nine out of ten are not aware that the Falklands are now inhabited. . . .

[1] Senate Documents (Executive). Printed by order of the Senate of the U.S. for the second session of the 42nd Congress 1871–2. Washington, 1872, vol. i, document No. 19. From which documents the following account of the *Hudson* and *Washington* affair is taken, except where otherwise stated.

Your Excellency must be well aware that it is not the American vessels alone which trespass. Have not the French ships shot sheep in Berkeley Sound? Have not the Montevidean vessels done the same? Have not the English ships shot the pigs in Sparrow Cove? I am very sorry such things should occur but you may depend I will do all in my power to prevent it.'

In December, 1853, there lay at New Island (a favourite resort of American ships) the United States whaler *Hudson* of Mystic (Connecticut), Hiram Clift, master; and her tender the schooner *Washington* (Wm. H. Eldridge, master). As will be seen Hiram Clift is described by his countryman, Commander W. F. Lynch, as 'a timid innocent man, one not easily aroused to resent an aggression'. This timid, innocent man had in September, 1849, been heavily fined for killing cattle belonging to Lafone. Either in timidity or innocence he repeated the offence by killing hogs and geese and taking hair-seals on New Island. No sharp-eyed, bullying British official saw him. The deed, like many others of the kind, would have remained unknown but for his own men. Six of his crew deserted. Whether they were yet more innocent than Clift and could not bear his evil deeds, or more quickly roused than he was to resent an aggression, is unknown. They merely appeared in Stanley on January 9th, called on Governor Rennie, and, before the Falkland Islands magistrate, laid information against their captain. Smyley was present when their depositions were taken.

He took charge of the six seamen that they might not be harmed by imprisonment at Stanley with, perhaps, deserters from English ships. He then wrote two letters: one to the Secretary of State, explaining matters; the other to Commodore W. D. Salter, commanding the United States Squadron, Brazil station, to suggest that an American man-of-war

should call at Stanley as Rennie had sent to Montevideo for a vessel of war 'to break up our fisheries in this part of the ocean'. Smyley's suggestion was immediately acted upon by Salter, who wrote from the U.S. Flagship *Savannah*, off Montivideo on 17th February, 1854, to Commander W. F. Lynch of the *Germantown*, enclosing a copy of Smyley's letter and ordering Lynch to proceed at once to the Falklands, to call on Smyley, and 'Keep a watchful eye on the interests of our citizens' (the Americans then resident on the islands were Smyley—eminently capable of taking care of himself—and a butcher who was half-Dutch), and 'avoid as far as possible all causes of collision'.

Lynch hurried off on his mission, burning to avenge his countrymen's wrongs. Meanwhile H.M. brig *Express* (Henry Boys, commanding) had arrived at Port William. His Excellency, wishing to make an example of Clift, requested the *Express* to convey the chief constable (who was armed with a warrant dated 20th February, 1854) to Ship Harbour, New Island, there to arrest Captains Clift and Eldridge and bring them to Port Stanley to be tried. Not only so, but the *Express* was ordered by Rennie to convey thither both the *Hudson* and the *Washington*, by force, if necessary. By which last order his Excellency put himself in the wrong.

The *Germantown* reached Port William on the afternoon of the 2nd of March. 'From previous loss of sleep and exposure I felt too weary', Lynch reported to Salter, 'to visit the shore that evening, but at daybreak sent a note to our Commercial agent requesting him to accompany me in a call upon the Governor.' Before that call could be made, however, an American schooner hove in sight, and Lynch was shocked to see upon her deck an English naval officer and some sailors from a British man-of-war. What was even worse the

Hudson was at that moment entering harbour with the *Express* close—too close—beside her. He immediately made arrangements to retake both schooner and whaler, prepared to sink the *Express* if she interfered. He then, with Smyley, went to call on the Governor. Smyley wrote to Salter an account of the interview, in which His Excellency is reported to have used language 'very unbecoming an officer and a gentleman', while Captain Lynch is described as 'cool and collected', arguing 'with moderation, and . . . though mild, yet forcible and impressive'. Lynch demanded by what authority the vessels had been seized; and was assured 'by that functionary' that serious depredations had been committed by the crews. Rennie then handed Lynch a copy of Marcy's notice to American whalers, 'which until that morning', confesses Lynch, 'I had never heard of. . . . Before I saw that notice I had determined', writes this mild young officer, 'that if he did not disclaim his act and make reparation, to seize him as a pirate and either bring him to you or send him to the United States to be disposed of.' 'The Governor', continued Lynch, 'became very much excited and asserted with some warmth that he could, if he thought proper, drive American vessels from the islands.' Lynch was, of course, very much moved at such arrogant presumption; but . . . 'I did not lose my self possession'.

Rennie, towards the end of the interview, invited Lynch to dinner. This invitation Lynch condescended to accept; first, however, returning to his ship and turning his guns (he had twenty-four) on the little *Express*. Then, having written his report, he returned to Government House. At dinner there, not approving of a toast that was proposed, he declined to honour it. A meeting was arranged the following day between Lynch and His Excellency. But the former, having heard more about the way in which the *Hudson* and

Washington were brought to Stanley, declined to meet the Governor. Lynch, however, wrote to Commander Boys,[1] inquiring if the seizure of the two American vessels 'were made on your own responsibility or under orders from Governor Rennie?' To which Boys replied that it had been 'my painful duty at his request to convey a civic authority to Stanley Harbour to wait the issue of a prosecution'. 'I have acted with all the moderation possible . . . the officers and men were only placed on board, as a security for the vessels not proceeding to any other port, and with orders not even to interfere with the navigation of the vessels.'

The next day (5 March) Rennie offered to call on Lynch. Lynch consented to see him; and received the Governor and his suite (including Boys) with much ceremony and two ruffles of the drum; giving him a salute of twenty-one guns on his departure. Lynch refused, however, to go to Government House; and 'I then moved this ship to a position where her battery commanded both the *Express* and the few guns mounted upon the shore, with the determination of following that vessel if she left the harbour before I had received an explanation from her commander'. The following day—6th March—Commander Lynch wrote to Governor Rennie: 'As the immediate protector of American interests in this quarter, I ask what could have so blinded you to the consequence as to induce the commission of such an outrage?' Rennie, in his reply dated the same day, assumed entire responsibility for the act, enclosing a copy of Marcy's notice. He further declared that he had

[1] When serving as a midshipman on the *Edinburgh*, employed in the operations of 1840 on the coast of Syria, at the capture of Beyrout, Boys had been entrusted with the duty of removing the powder from the castle. O'Bryne (W. R.), *Naval Biographical Dictionary*, London, 1849.

acted 'strictly in fulfilment of the instructions I have received from my government, and in accordance with the powers I possess as governor of a British colony'. The 'greatest good feeling seems to have existed throughout between both the master of the vessels and Captain Boys and his officers; and both vessels entered the harbour with American colours flying'.

On the 7th March Clift appeared in court; and, taking upon himself the whole responsibility of Eldridge's share in the depredations, was convicted on his own confession of unlawfully killing twenty-two pigs, and was fined by the chief justice, with two others on the bench, in the mitigated penalty of £1 per animal (the full penalty provided for by law[1] being £20 each), with £5 16*s*. costs. Clift paid the fine (under protest) and was discharged. The same day Lynch wrote to both Boys and Rennie. To the former he remarked that Rennie, by assuming responsibility 'may exonerate you with your own Government if it be inclined to disregard the laws of nations, but I will send you copies of depositions on oath of the masters and chief officers of the two vessels, which will show that you evinced much zeal, and no little disregard of rights in what you have been pleased to term a painful duty. . . . I may seem churlish in declining to return your visit, but . . . it would, in my present state of feeling, be absolute hypocrisy.' On which Boys wrote back that he was 'conscious of perfect rectitude. . . . I can only regret you consider the subject a sufficient cause to stop the interchange of courtesies between us'.

To Rennie Lynch wrote—with some warmth for

[1] The warrant on which the whaling Captains were arrested—signed by J. R. Longdon, at the instance of J. P. Dale, manager of the Falkland Islands Co.—charges them with killing thirty hogs. The Pig Ordinance was not passed until after the depredations were committed.

a ' cool and collected ' young man—' My spirit writhes under an indignity as yet unredressed. . . . I struggle as against the feelings of one who has personally received a mortal affront, and cannot on the instant resent it . . . if a strong expression should escape me I beg you not to ascribe it to intentional rudeness. The United States, ample in their dominion, prefer no claim to these inhospitable rocks and bogs, but their government will . . . maintain the unrestricted right of its citizens to use the uninhabited islands of this group . . . and to navigate their bays and straits.' To the question of British sovereignty over the islands Lynch stoops with some effort: he is not authorized ' either to admit or deny it '. ' Neither could the United States chargé d'affaires to the Argentine Government advise me. But he assured me that the Government to which he was accredited had not, and would not, relinquish its claim to these islands.' As to the American vessels, ' It is insulting to say that there was no coercion; and it is a mocking insult to speak of the vessels coming into this port with their colours up.'

On 8th March came Rennie's answer: ' My commission as Governor of the Falkland Islands empowers me to administer the government and to uphold the laws, but not to treat of matters which, if to be entertained at all, could only be by plenipotentiaries specially appointed by Great Britain and the United States.' The impression that Lynch removed the *Hudson* from the custody of the colonial government ' presuming on the overwhelming physical force at your immediate disposal is universal among the inhabitants, and, until explained, can only be viewed by me as an insult to the power which I have the honour to represent. . . . The courteous assurance contained in the third paragraph of your letter of yesterday's date disclaiming any intention of making use of

"strong expressions" puts it out of my power to allude to words which, but for this assurance, I should have felt it to be my duty to bring to your notice for reconsideration.'

That such a letter should be written to him—William Francis Lynch, Commander of the U.S. corvette *Germantown*—was unthinkable. For the moment it took his breath away. His counterstroke was to refuse all communication with the Governor. 'After his letter of the 8th', wrote Lynch to Salter, 'I declined receiving any further communications from him, sending him word, by the officer who brought the letter I rejected, that our correspondence was at an end.'

It was not. One day of silence did Commander Lynch endure; then, forgetting to be silent, his righteous indignation burst forth in letters in which it is much to be regretted that the writer seems—doubtless for the moment only—to have lost his mildness and moderation.

'. . . It has not been my purpose to expose your excellency to ridicule for I attributed the wildness of your language during our only official interview, rather to a temper little subjected to control than to unpardonable ignorance; but since you seek to implicate me, instead of exonerating yourself, I will not spare you.'

He went on to inform Governor Rennie that

'. . . an elaborate but insincere courtesy only aggravates the injury when reparation is at the same time withheld. . . . After the repeated demand why American Commerce is molested all that I can extract is "Pigs! Pigs! Her Majesty's Pigs!" . . . Your excellency is in error in saying that I was induced to take the course (which I did *not* take) from the overwhelming physical force at my command. . . . I can make allowance for the acrimony from whence your insinuation proceeds for you have been checkmated in an attempt to break up the American fishery. . . . I learn from various sources that a majority' [of the colonists] 'the poor in especial—rejoice at the difficulty

in which you are involved, and will by no means grieve should your removal be the consequence. . . . Captain Clift is a timid, innocent man, one not easily aroused to resent an aggression . . . but in the present matter his resolution is made. . . . The United States have not thought proper to take possession of this group of islands, but have used them for a longer period and more extensively than all other nations combined. . . . The group of islands . . . with their harbours, bays and strait embrace an area of nearly 9,000 square miles; and for a Governor of a very small settlement in the remotest eastern point of the entire group to assume absolute sovereignty over the whole . . . reminds me—your Excellency will pardon me—of the fly which, looking down from the dome of St. Peter's, fancied that the immense structure was raised expressly for its accommodation. . . .'

Lynch then wrote to Boys to 'demand why you placed your foot, uninvited, on the decks of two American vessels and took possession of their papers?' To which Boys replied (11th March): 'I do not hesitate to reply to your rather uncourteous demand. . . . I was not aware of the slightest impropriety or even rudeness in a British subject visiting a vessel of the United States at any time, more especially in British waters.' Two days later Lynch replied:

'I have used no personal terms whatever in my correspondence with you,' he declared loftily, though with some inaccuracy, 'and will content myself with intimating to you that the word "uncourteous" was uncalled for and is highly reprehensible. I demanded of you . . . why you placed your foot uninvited on the decks of two American vessels? . . . no one has a right to board an American vessel except a health or a peace officer, the latter armed with a writ or a warrant. . . . In all other respects the flag makes the territory. My countrymen yielded themselves up to the constable and therewith you should have been content, instead of which you stepped forward and assumed his place. I have enjoined it upon the officers of these vessels, and desired them to pass the word round among their associates, that if they have but one charge of powder or ball on board and any naval officer of any nation but their own at sea, or in port, attempt, without leave obtained,

to plant his foot upon the deck of a vessel protected by the American flag, to shoot him without an instant's hesitation . . . after repeated ineffectual efforts to obtain an answer from his excellency why the American vessels were seized I have, wearied with his non-committal replies, declined receiving any further communication from him. . . . I cannot congratulate you on having obtained the approbation of Governor Rennie for, in my opinion, such another approval will be your absolute ruin . . . had it not been for Mr. Marcy's notice . . . I would have considered and treated you as a pirate. . . .'

It may be remembered that Duncan, of the *Lexington*, was also fond of the word pirate.

Two days later the *Hudson* and *Washington* returned to Mystic. Said Lynch in his report to Salter: 'Clift and his men were so disheartened by the loss of time, at the most propitious season, which would have ensued before they could reach their fishing ground again, that although I offered to convey them back and protect them, they determined to abandon the voyage and return home. A week later—March 20th—with winter setting in, the *Germantown* returned to Montevideo, Lynch reporting to Salter that 'the governor was alarmed at the probable consequences of his temerity and there was no danger of farther molestation of our commerce by him'. Smyley also wrote to Commodore Salter, thanking him for his 'timely assistance', and praising Lynch —'You surely could not have selected a more competent person for this occasion. . . . After the *Germantown* sails', continued the redoubtable captain with meek resignation, 'I will be left in hot water, but I have become used to that. I am the only American here except a butcher who is half Dutch, so I will be like a target to be shot at, but I fear them not.'

On the subject of Clift's depredations Smyley declared:

'the pigs on Bleaker Island were put there by me in 1839,

and those on Swan Island by Captain Cutler, of Stonington in 1832. At different times pigs were put by me on West Point, New Island, and Pebble Island. In 1820 Captain Fanning placed pigs on Saunders Island, and when they became extinct I bought a large sow and several pigs from Captain Carew of Stonington, whose ship was burned at Port Egmont in 1837, and put them, with some rabbits, on most of the islands—say, Pebble, Keppel, Whale, Governor, Burnt, and several other islands. It is a practice among us fishermen to put pigs and goats on the different islands, and Captain Clift who is now fined for taking pigs has put part of what he caught on another island. This is the way the islands became stocked, as the British Government has never put any stock on any of these islands, except a few bullocks on West Falkland and two horses the Governor left on New Island two years ago, which were not worth taking off.'

At Mystic the sworn information of Clift and Eldridge led to a document being drawn up on the 14th of June claiming damages to the owners of the two ships of 22,000 dollars, and to the officers and crew of 17,000 dollars. But owing to the war, the death of the owners, and other matters, the bill does not seem to have been presented to the British Government until 1866.

Meanwhile in July, 1854, Marcy wrote to the British Minister at Washington complaining of the acts of the British authorities at the Falklands, and requested H.M.'s government to 'manifest its displeasure towards the offenders, and compensate the injured for the damages they have maintained'. He also expressed a doubt—somewhat late in the day—as to the British right to the islands, and denied the British pretensions to regulate the fishing there. The British government agreed on principle to indemnify the whalers (the fantastic claim had not yet been presented); and promptly disavowed the seizure of the American ships. The rest of the situation is made clear by the gravely dignified dispatch sent by

Lord Clarendon from the Foreign Office to Washington, September 21, 1854.

'. . . H.M.'s government had hoped that the promptitude with which they had disavowed the conduct of the commander of H.M.'s sloop *Express*, in bringing to Stanley the American whaling ship . . . would have been met by the Government of the United States in a corresponding spirit, and that the Government of the United States would have shown no less readiness to disavow the language and conduct employed by the commander of the United States corvette *Germantown* in his communications with the governor of the Falkland Islands and the commander of H.M.'s ship *Express*. It appears from Mr. Marcy's note . . . he entirely ignores the friendly explanations which you were desired to offer in regard to the conduct of the British officers . . . and, as if such explanations had never been offered, urges complaints, requires redress, and demands compensation. . . . But Mr. Marcy does not advert . . . to the overbearing and insulting language and demeanour of the commander of the American ship . . . to the orders which the American commander boasted that he had given to the officers of the whaling vessels, to shoot . . . any naval officer . . . at sea or in port, who, without leave obtained, should attempt to plant his foot upon the deck of a vessel protected by the American flag.

'I will not enter into any more details respecting the language and demeanour of the commander of the American ship of war, but will, through you, request Mr. Marcy deliberately to consider . . . whether such language and such demeanour are consistent with the usages of civilised nations . . . whatever might have been the view taken by H.M.'s government of any claim for compensation which the masters of American ships . . . might have preferred, it is impossible for H.M.'s Government to entertain any question of that nature until they are assured that the conduct of the commander of the *Germantown* will at the same time be disavowed by the Government of the United States. . . .

'I cannot conclude this despatch without expressing my surprise that Mr. Marcy should appear to call in question the right of Great Britain to the sovereignty of the Falkland Islands. H.M.'s Government will not discuss that right with another power, but will continue to exercise, in and around the islands of the Falkland group, the right inherent under the law of

nations in the territorial sovereign . . . and to prevent all possibility of mistake . . . declare that they will not allow the wild cattle on the Falkland Islands to be destroyed, or other depredations to be committed on the islands by any foreigner to whatever nation they may belong. . . . You will read this despatch to Mr. Marcy, and you will give him a copy of it.'

There the matter rested for a time. Graver questions claimed the attention of both Governments; it was not until May, 1866, that a claim was made for indemnities. In May, 1871, at the request of the Senate the documents relating to the case of the *Hudson* and *Washington* were printed, and then overlaid in the mass of material constituting the *Alabama* claims.

VII

BRITISH RULE, 1855–80

Development of the settlement.

In July, 1855, a new Colonial Governor was appointed. Unlike his two predecessors he was neither soldier nor politician. Thomas Edward Laws Moore entered the Navy in 1832. He first saw the Falklands in 1842 as one of the younger officers of the *Terror* (Captain Crozier) when, with the *Erebus*, she wintered that year in Berkeley Sound. When the two ships reached England in 1843 he was promoted lieutenant, becoming skilled in magnetic observation, and detailed by the Admiralty to supplement the magnetic work of Ross to the south of Africa and the Indian Ocean. As is well known the *Erebus* and *Terror* were commissioned for Sir John Franklin's Arctic expedition—with Crozier again in command of the *Terror*—in 1845 ; in which year they sailed away to their unknown fate. The number of search expeditions sent out after them was unprecedented. Two of the first to go in 1848 were Captain Moore, in H.M.S. *Plover*, to seek his old ship in Behring's Straits ; and Captain Sir J. C. Ross (formerly of the *Erebus*) in H.M.S. *Enterprise* to Lancaster Strait.[1] Ross returned the following year ; Moore not until 1852.

He came out to the islands with his wife and children, also bringing with him John Sibbald, a naval commander on half pay, formerly second lieutenant of the *Erebus*, then first lieutenant of the *Terror*, who was appointed Clerk of the Courts at the princely salary of £155 2*s.* 6*d.* per annum. Many of Captain Moore's

[1] Richardson (Sir John), *Polar Regions*. Edinburgh, 1861, p. 172.

letters—some written while on board the *Plover* in the Arctic regions, some from Government House, Stanley—are now in the British Museum.[1]

A few extracts from the latter may be quoted here. They show how the settlers—some of whom seemed to him raw almost to savagery—affected the naval officer, used to rigid discipline and self-control.

'Government House. Stanley
22 April, 1856.

'. . . I have so wanted to write to you since here, but like you my time is fully occupied . . . most unthankfully, for these people are worse than savages—I would sooner be among my old friends the Esquimaux than with the so-called officers here. They have been on the island so many years they have forgotten how to behave as gentlemen. I have tried to get on with them but find it is of no use. When first I came here everything looked deplorable, drunkenness was the prevailing habbit [*sic*]. Divine service carried on in a dirty room. . . . I have had the church removed to a House that was intended for an Exchange, and requested the clergyman to perform his duties as required by the Church of England. Since which time I am glad to say I meet twice on a Sunday about 80 people. Before there was at times only three. Drunkenness I likewise set my face against, and on the 17th of March was opened a Tea totle [*sic*] Room and Reading Room, each has now about fifty members. The men go to their work now much better and feel the benefit of this room. I am sorry to say the officers do not like to see this, their ideas are to live in a kind of degraded way. . . . I have invited them several times to dinner with me and the last time about a month ago, when I had the French Brig of War *Beaumanoir* have all the officers meet my officers and spent a very pleasant evening.

'They all think of nothing but wrecks. Such proceedings that have gone on here, and because they see I cannot nor will have any hand in such base matters they set their faces against me. . . . These islands may be made . . . a key to the Pacific; but not if they allow these things to go on . . . I only trust

[1] Add. MS. 35308, ff. 113–37. They are addressed to Colonel John Barrow (son of Sir John), Keeper of the Records of the Admiralty; and, with many other letters from Arctic explorers, were bequeathed by him to the British Museum in 1899.

they will support me at home. I find every kind of vegetable grows remarkably well, one cabbage from my garden weighed 13 lbs. . . . My time is all taken up with these miserable officers. The one I have in my office as my secretary is a very bad disposed man. . . . On one occasion he went on board the *Allen Gardiner* . . . and threatened to knock him' [Captain Snow] ' down.[1]

'I sent two of my boys home in the *Pandora* with Captain Drury. I should like you to see him when at the Admiralty. . . .'

'Government House, Stanley.
18 Nov. 1856.'

Asks Barrow to write to him as ' this place requires that one's friends should remember them; for it is the most desolate and unsatisfactory position to be placed in, I have never felt so unhappy in my life; there is nothing to relieve the monotony and no honour to be *gained* although I can with pleasure say that things are improving . . . the place is quieter, no drunkenness, buildings progressing slowly, and we go into the new church on the 30th inst, which will then be completed. I am sorry to say for the last two years there is a great falling off of shipping, which is of course caused by the War, which throws a great many men out of employment, and everything being so very expensive drives the people from the Island. I have applied to make this a Penal Settlement, which will be the only means of bringing the Island into any state for capitalists to commence on . . . we are now paying famine prices for everything; servants' wages £25–£30, and soon we shall be obliged to do for ourselves. . . . When you can find time do send me a line about the new Expedition in search of the remains of Sir John Franklin. *How* I should like to be going . . . now I am spending my life without any chance of doing good. But I will not say any more or else you will say I am growling. . . .'

18 Jan. 1857. Thanks Barrow for his Journal, also for books and charts. 'I am gratified in being able to give you a more favourable account of this place, also glad to say all the officers have seen their error . . . and are going on very comfortably. The *Electra*, Commander Morris, sailed from here last Saturday the 11th inst for England, he will call and see you. I sailed with him in the *Hyacinth* some 12 years since . . . we have had very bad weather . . . but trust soon to have better, being about starting on my tour round the island. Will you go with me?

[1] Captain Snow was also an Arctic explorer. His letters are in Add. MSS. 35308, ff. 311–48; 35309, ff. 212–56.

You would write such a nice account of all the wild scenery and cattle. . . . I long to get some news from you about the Trip . . .' [in search of Franklin] 'are there any ships going by the way of Behring Straits? . . . Never should the search be dropped until the ships are found or their Books and Papers, and I do not give up the hope still of there being some of the crew alive. I wish I was home to volunteer. . . .'[1]

The first year that Moore was Governor an epidemic —the first experienced in the islands—broke out among children, and the school was closed for seventeen weeks. Bolivian half-dollars of adulterated metal were introduced about this time, and were current at the value of eighteenpence each. Hamburg had previously appointed Thomas Havers—Manager of the Falkland Islands Company—as Consul. 'No exequatur has yet been issued,' reported Moore in 1856, 'but Sir George Grey in his dispatch No. 5 of 15 October 1855, has given directions that Mr. Havers shall be provisionally recognized pending its issue. Smyley was still commercial Agent for the United States, though he 'has never been recognized as such by the British Authorities, nor does it appear that any recognition has ever been applied for'.

The question of a penal settlement being established at the Islands was renewed with some warmth. Moore himself, many of the colonists, Lord Grey, and others —including Captain Snow—were strongly in favour of the scheme; while the late Governor, Rennie, wrote[2] and spoke as strongly against it.

Many of the Chelsea Pensioners left the island and were replaced as a garrison by a force of thirty-five marines—all married—under Captain C. C. Abbott.[3] Among the immigrants in 1857–8 were several Roman

[1] Add. MS. 35308, ff. 125–37.

[2] *The Times*, January 5, 21, 23, 27, 28, 29, 1857.

[3] He remained in the islands from February, 1858, to October, 1860. His valuable notes on the natural history of the islands are referred to below.

Catholics. A priest from Buenos Aires came to minister to them and remained for some months in Stanley. The little Roman Catholic community bought half an acre of land in 1858, and addressed a petition to Cardinal Wiseman begging him to send a priest to live among them; but, for the next fifteen years, they were forced to content themselves with the occasional ministrations of priests from Buenos Aires. By that time the Government House, begun in 1844, was not finished but sufficiently complete to allow Governor Moore to reside there; the wooden cottage formerly occupied by their Excellencies being made the Government offices.

In 1861 there was no assembly of the Legislative Council; neither was any land sold. This was due to the operation of the New Land Regulations which allowed any person to obtain a station for twelve months' occupation on payment of £5; and when the Licence to Occupy had expired, a lease for five years might be obtained, purchase being only compulsory within the five years' lease.

In October, 1862, Captain James George Mackenzie, R.N., was appointed Governor, and arrived at the islands towards the end of November. There were but thirteen immigrants that year, chiefly the wives and families of the Scotch shepherds sent out by the Colonial Land and Emigration Commissioners. In February, 1863, William Horton Smyley was at last recognized by H.M.'s Government as Commercial Agent for the United States. The same year, owing to the difficulty of chartering a vessel to carry the mails to Montevideo the colonists obtained a schooner of their own for the purpose. There were then thirteen vessels at the islands, including Smyley's *Nancy* and two other American ships, and the mission ship *Allen Gardiner*.

Vice-Admiral (as he had become) Mackenzie was not

long after replaced by William Cleaver Francis Robinson (afterwards G.C.M.G., and F.R.G.S.) who was appointed Lieutenant-Governor 23rd May, 1866, and arrived at the islands early in July. He was a musician, and an Irishman. Later, in the 'seventies, when he was Governor of West Australia, India, Canada, Victoria and New South Wales were all being governed by Irishmen.

Young as William Robinson was when he came to the Falklands he had, since 1862—after serving as secretary to his brother, Sir Hercules Robinson, when the latter was Governor of Hong Kong—been President of Montserrat, that rugged elusive island in the West Indies, eleven miles long by seven miles broad. He left his unpretentious quarters in Plymouth Town for a few months' service in the sister island of Dominica, then passed from orange trees and spices to, as he phrased it, 'a remote settlement at the fag end of the world',[1] with a popluation of less than 700 souls. There, in his four years' service among the rawness and roughness of a colony yet unshaped, the worker, dreamer, and maker of songs must have come by some of the wisdom which, after thirty years' 'constant service of the antique world', made him in 1890 the doyen of Colonial Governors.

But little outwardly remarkable occurred during his governorship of the Falklands. He reports the first year, among public works, the construction of an additional room at the Court House, of a sentry-box; and, as usual, work was still proceeding on Government House. In 1868 Captain W. H. Smyley, after nearly forty years, seems to disappear from public view; for in that year G. M. Dean, consul for Denmark since 1858, was appointed Vice Commercial Agent for the

[1] Parker (Gilbert), *Sir W. C. F. Robinson, G.C.M.G.* (Reprinted from the *Centennial Magazine*, July, 1889.) See also *The Times*, 3 May, 1897; and *The National Observer*, 7 November, 1891.

United States until the following year, when Joseph Powell was officially recognized by H.M.'s Government as the United States Commercial Agent, 8 April, 1869; F. E. Cobb being appointed Consul for Belgium and Italy. In the same year Pebble Island and the adjacent islands were sold to Mr. Dean for £400.

The following year Governor Robinson left the Falklands for Prince Edward Island—a long step forward and upward—and Colonel George A. K. D'Arcy was appointed to succeed him at the Falklands in January, 1870. D'Arcy came to the islands after serving for thirty years in the tropics, but so far from being wearied he seems to have brought to his new post a most alert freshness and vigour. The very climate 'of these tempestuous regions', he wrote 'became to me fraught with novel interest. During the last twelve months the average range of the thermometer has been 47° and that of the barometer 29° 30'; the days were wild, grey and tempestuous, giving, however, a relief of thirty-two glorious fine days, at long intervals, with a resplendent sun shining as bright as gold through the clearest of atmospheres, and ending with the most exquisite sunsets the imagination of a painter can conceive!'

One of his first acts was to bring before the Legislative Council a proposal to form a poor law. The proposal was received throughout the island with extreme disfavour, 'the people imagining that it was the duty of the Government to maintain the poor of the colony'. Indeed, with all their good qualities the new Governor was distressed to find that his people 'wholly rely on the Government for many private wants and all colonial improvements'. They were extremely repugnant to taxation, even when indirect, 'and jealous and irritable to a degree at the attempt the Government have made lately to control the wrecking trade, conceiving the derelict of the

ocean to be wholly the property of the discoverer'. A kindly action of the new Governor was the erection of crosses on the spot where two young naval officers—Lieutenants Robertson and Jerningham—were found dead, with their guns and game by their side, after losing their way on the moor beyond Stanley.

In February, 1871, H.R.H. The Duke of Edinburgh visited the islands, and 'was pleased to express the interest he felt at the sight of the Penguin Rookery near Stanley'. In June of that year, in the depth of winter, a hurricane swept round the Horn, dismasting a fleet of merchant vessels which were compelled to take refuge at Stanley; while the islands' schooner *Louisa* (Charles Hanson, master) took off from Tierra del Fuego the crews of two shipwrecked vessels. The weather retarded the progress of 'public works', which, it need scarcely be said, included the construction of Government House and repairs to the mail schooner *Foam*. The *Foam* is so often described as being under repair that it may be wondered when she found time to carry the mails. It is true she was nearly twenty years old having in her first glory as a schooner yacht sailed under Lord Dufferin to Iceland and Spitzbergen, and as far as 80 deg. N. Of recent years she had made some fifty voyages to Montevideo, beaten and buffeted off St. George's Bay, that hurricane spot half-way between Stanley and Montevideo where all the winds in the world seemed to gather, to war with terrific seas. Her figure head was a portrait—cast in bronze—

'of as sweet a face
As ever lighted up an English home.'[1]

Now, somewhat worn by age and the Atlantic, it rests in the museum at Stanley.

[1] Blackwood (F. T. H. T.), Marquis of Dufferin, *Letters from High Latitudes . . . in 1856*. Murray, 1857. (Lines to the Figure-head of the Foam.)

The Royal Marines were also busy making ' a good macadamized road ' running up to the signal staff at the back of the town ; extending the jetty at the dockyard ; making a road to Darwin through a stream of stones ; fencing in the cemetery at Port Louis, and making a bridle road to Cape Pembroke lighthouse. Colonel D'Arcy strongly advocated a monthly instead of a bi-monthly service between the islands and the home country. It was suggested that the service-worn *Foam* should, instead of sailing to Montevideo, shorten her journey by nearly two-thirds in sailing to Punta Arenas—or Sandy Point, to give it its English name.

Taken possession of by Chile in 1843 (the eastern portion of Tierra del Fuego is Argentine territory) she made of it a convict settlement. It was not, in its early days, an attractive place, being described by an old sailor as not ' . . . a cable's length from hell ' ; [1] but the discovery of gold in Tierra del Fuego increased its importance ; and a line of large steamers running from Liverpool to Valparaiso coaled there every month.

If communication between the islands and England was difficult it was worse still between East and West Falkland ; as though the distance from Stanley by water round to the western island was more difficult to bridge than the 14,000 miles from England. D'Arcy declared that the settlers on West Falkland had sometimes to wait as long as four months for their letters after they had arrived at Stanley. Considering, he said, that West Falkland contributed one-fifth of the revenue in rent alone, he considered they had a right to expect the extension of the mail service to a central harbour on the east of West Falkland ; and he announced to the home government his intention of

[1] Spears (J. R.), *The Gold Diggings of Cape Horn* . . . New York and London, 1895, p. 29.

placing a sum on the estimates of the following year in order to carry out the service. He was also desirous, since there was no longer a demand for penguin oil, to keep the birds from slaughter and open up a trade in guano. A merchant in Buenos Aires applied for leave to rent Beauchêne and other islands, also South Georgia, in order to obtain the deposits there; and work was begun in the smaller islands in 1872. Although it was inferior, owing to its lack of ammonia, to that of the Pacific, it was hoped that as the supply failed in the Pacific, the guano of the Falklands might find a ready sale in London.

The railway [1] from Buenos Aires to Valparaiso was then in course of construction, and it was foreseen that when it was finished there would be a demand for fuel in a country where coal was £3 a ton. D'Arcy therefore suggested that the peat in the islands, which is unlike any other, might be compressed into patent fuel. 'This has answered', he writes, 'in Oranienbaum in Russia, where locomotive engines are worked with compressed peat.' But the plan fell through.

The following year the new gaol was finished. Stanley took a great pride in it, as it was the only building, besides Government House, which could with accuracy be termed a house. It is true it was generally empty; but then it could always be used as a hospital, or a store-house, or in various other ways.

D'Arcy's report for 1873 was written on Keppel Island which the Governor was visiting in March, 1874, during a seven weeks' tour of West Falkland. The South American Missionary Society was breaking up its settlement on Keppel Island. The former superintendent of the mission, the Rev. Waite Hockin Stirling, consecrated the first Bishop of the Falkland Islands in 1869—had established a mission at Ushuia,

[1] The first Argentine line was laid down in 1857. In 1866 the railway mileage was 73 miles; in 1908 it had grown to 15,476 miles.

now the capital of the Argentine territory of Tierra del Fuego, living there alone in a hut for some months. This was to be the head-quarters of the mission; and there the Rev. Thomas Bridges was then at work, engaged in writing a dictionary and grammar of the Fuegian language.[1] Keppel Island, however, with its 8,000 acres of pastoral land, was not sold until 1911.

In 1873 an obelisk, which has now disappeared, was raised on the spot where he landed, to commemorate the visit of the Duke of Edinburgh; while another reservoir was constructed on the East side of Stanley. The same year the Roman Catholics in the islands, with the assistance of government labour, built a small chapel; and two years later, in November, 1875, a resident priest, the Rev. James Foran, came out to them from Newcastle.[2] There were then about 215 Roman Catholics to 1,000 inhabitants. An acre of land, opposite the entrance to the harbour, was obtained from the Government for a church, schools, and a house for the priest. Like the rest of the islanders the Roman Catholics found their best friend in the Governor, while Mrs. D'Arcy was of their faith.

In January, 1876, H.M.S. *Challenger*—the reports of whose famous cruise were afterwards to fill fifty volumes, apart from unofficial works—under Captains Sir George S. Nares and F. T. Thomson visited the Falklands. She came up from Punta Arenas and Elizabeth Island, and entered Stanley Harbour in a biting hail-storm January 23rd. She was the first vessel to cross—in February, 1874—the Antarctic circle under steam, and her work marks an era in deep sea exploration; though much still remains to be done in bathymetrical and deep-sea deposits work in the region south of 50° S.

[1] Bridges's notes on Tierra del Fuego will be found in *Revista del Museo de la Plata*, 1892.

[2] *Les Missions Catholiques*, Lyon, 1868–1914. viii. 1876, p. 506.

The expedition was warmly welcomed at Stanley, especially by Colonel D'Arcy, who was anxious to obtain expert opinion on the reported find in the islands of coal and graphite. H. N. Moseley, the naturalist of the expedition (the scientific staff was under Professor C. Wyville Thomson, knighted later the same year), rode over to Port Sussex to investigate. He found the beds of so-called coal were simply very bituminous layers among the clay-slates : the ' graphite ' being only the blackest samples of the same material. Any disappointment in the matter of coal was more than compensated for in his eyes by the discovery of the skeleton of a Ziphioid whale.

The *Challenger* remained at the islands a fortnight, then went north and homewards, after laying to rest in Port Louis churchyard a sailor who had fallen overboard. Six weeks later Colonel D'Arcy wrote his last report on the islands. In it he notes the desire of an owner of a steam vessel at Valparaiso to run a line of ships between New Island and Sandy Point, if the transport of live-stock for the Chilean Government could be combined with conveyance of the mails. The question at whose expense the mails from New Island would be carried to Stanley was never answered.

In the middle of May Governor T. F. Callaghan, C.M.G., assumed the reins of government. Much of his first year's report is taken up with shipping notes. All the outer life of the islands—even apart from the material aspect—lay in the ships that came and went, bringing to uneventful days and straitened outlook the tragedy, romance, incessant movement of the seas ; bringing also (to those who cared to see) the unnecessary suffering which callousness or carelessness made seamen

[1] Thomson (Sir C. Wyville), *The Atlantic. A preliminary account of the general results of the exploring voyage of H.M.S.* Challenger . . . Macmillan, 1877, ii. 208. See also Mosely (H. N.), *Notes by a Naturalist on the* Challenger. Murray, 1892, p. 486.

endure. In that year there limped into Stanley Harbour—forced to do so; many vessels struggled on to Montevideo sooner than come to Stanley where was no dock to facilitate repairs—the British ship *St. Elmo*, with nine of her crew suffering from lead poisoning in its acutest form, many of them being paralysed in hands and feet for months. In this vessel the pipe of the water tank had been several times repaired with red and white lead; while, later, the British ship *Crown Prince*, put in with her crew poisoned through being fed on putrid salt pork. Six of the men were delirious and in a dying state. Of those who recovered the colonial surgeon declared it would be months before they were fit to work again. Before that, away to the south, on Hoste island—a fragment of that confusion of fiord and channel and jagged islands known as Tierra del Fuego—eight men and a woman lay dying and dead from starvation and cold. The news was brought to the Rev. T. Bridges at Ushuia by Indians from New Year's Sound. The *Allen Gardiner* (then commanded by Captain Willis) went at once to the rescue. Bridges and Willis, led by the Indians, clambered up the rocky coast and discovered the nine dead bodies. By a fragment of writing on one of them they were identified as the Captain, his wife, and seven of the crew of the *San Rafael* of Liverpool, which had caught fire in lat. 53° S.[1] Governor Callaghan conveyed the thanks of the Government to Bridges and Willis for their 'humane exertions'; and forwarded from the Board of Trade £20 to be distributed among the Indians 'as a reward for their very creditable behaviour'.

Towards the close of the year there arrived in Stanley harbour a Chilean man-of-war, bearing the Governor of Punta Arenas—Señor Diego Dublé—who was anxious, as he informed Callaghan, to promote

[1] *Liverpool Weekly Mercury*, 15 April, 1876.

commercial intercourse between his colony and the Falklands. This, it was thought, would be best achieved by running a line of steamers between Stanley and Sandy Point. Callaghan hoped much from the success of this enterprise, believing it would assure the prosperity of the islands.

The following year, the Governor went round the islands, through the kindness of Captain Fairfax, in H.M.S. *Volage*. He was much struck ' by the small number of people employed on most of the farms in proportion to their great extent '. An account of the mission station on Keppel Island was sent to his Excellency by Bishop Stirling. The bailiff's returns of the stock, produce, &c., of the small island, will be found on p. 279. In the first years of the mission the South American Missionary Society paid the Colonial Government a yearly rent of £10 until 1868, when, on the advice of Governor W. F. C. Robinson the £10 was reduced to a pepper-corn rent for sixty years.

The Bishop had for some months been performing the duties of Colonial Chaplain until the 19th March when the Rev. Lowther E. Brandon arrived; one of his first acts being to establish the Stanley Total Abstinence Society.

The proposed running of a steamer between Stanley and Sandy Point from which so much was hoped was prevented by a mutiny which occurred at the Chilean town in November, 1877. The garrison mutinied, the convicts mutinied. They revenged themselves for the cruelties committed by the commander of the garrison by subjecting him to various tortures before he died. They set fire to the Governor's—Diego Dublé—house and other buildings. The Chilean man-of-war *Magellanes*, the U.S. corvette *Adams*, the German steamer *Memphis* between them restored ' order '—that is, all mutineers caught were hanged, and those who escaped starved. The criminal element

thus being eliminated the Chilean Government thoughtfully proposed converting the settlement into a peaceful agricultural and industrial town. The mutiny was a disappointment to the Governor of the Falklands. His greatest wish was for steam communication between his islands and the outer world. This, he admitted with regret, was not likely to be accomplished by local enterprise; 'the two leading mercantile houses rather appearing to preserve the existing state of things under which they have enjoyed a very profitable monopoly of the entire trade of the islands for many years past'.

The winter of 1878 was very severe. From the end of May until the end of August the ground was almost continuously covered with snow. In December icebergs were met with by ships as far north as lat. 43° 30′ S.; long. 58° 01′ W. Governor Callaghan was away on leave. During his absence occurred the landslip of peat described in full in the Colonial report[1] by Acting Governor—late Surveyor General—Arthur Bailey. About midnight on the 29th of November certain of the inhabitants of Stanley found their houses surrounded by a black moving mass of peat about four feet high. It came down a hill above the east end of the town, flowing towards the sea, sweeping away walls and gardens and partly burying houses. In the morning Bailey 'proceeded' (an official invariably 'proceeds') to the scene of the disaster, and found all communications between East and West Stanley cut off, except by boats. There was then no movement in the mass except in Philomel Street, where the liquid peat was moving down at a very slow rate. By damming up all available supplies of water and sluicing the peat while in a liquid state Philomel Street was eventually cleared. Work, in

[1] Also in the *Quarterly Journal of the Geological Society*. Proceedings 96, vol. 35, 1879.

cold and rain, was carried on for a week; a trench on the back of the hill being cut to drain off the water accumulating in the depression where the turf had collapsed. Work, danger, and excitement (no lives were lost) kept Stanley busy until a new topic of conversation was provided in the arrival at Christmas of the *Alert* on her voyage of exploration to the far south seas. She was commanded by Captain Sir George Nares (formerly of the *Challenger*) who at Montevideo had taken on board as his guests—the schooner to Stanley being crowded with passengers—Governor and Mrs. Callaghan. Coppinger, the surgeon of the *Alert* and scientist of the expedition, describes the appearance of the peat avalanche from the ship as 'very peculiar and in many respects the whole occurrence resembled a lava flow'.[1]

The following year Callaghan was forced by illness to relinquish his post. In his last brief report he touched on the fact that for the first time in the history of the islands no parliamentary grant had been needed, and that for the future the colony might be regarded as self-supporting. He also, after eighteen months' trial, expressed his satisfaction with the civil police force which had replaced the Royal Marines; and his hope that the government would grant a small subsidy towards the introduction of steam communication between the islands and the outer world.

[1] Coppinger (R. W.), *Cruise of the* Alert. *Four years in Patagonian, Polynesian, and Mascarine Waters, 1878–82.* London, 1883, p. 31.

VIII

1880–1914

From Settlement to Colony — Battle of the Falkland Islands.

His Excellency Governor Callaghan left the Falkland Islands June 17th, 1880. The government was administered by R. C. Packe, senior Justice of the Peace, until the arrival in the *Theben* on November 24th of His Excellency Governor T. Kerr, C.M.G., formerly Attorney General in Barbadoes. In the latter's report for 1880 he remarked on the extinction of the Public Debt due to his predecessor's rigid economy. That the retrenchment was almost too rigid was shown by the defective condition of streets, drains, and public buildings.

Thirty-eight vessels arrived at the islands in 1880 of which eight sought help and refuge. Among them was the *G. F. Handel* of Bremen, loaded with coal and general merchandise for Honolulu, which arrived with her cargo on fire. It was impossible to extinguish it so she was run on shore, and became a wreck. Besides these eight the *David Law* of Glasgow, loaded with coals for San Francisco, was abandoned on fire on the Elephant Cays and totally destroyed. A court of inquiry was held at Stanley and the blame was attributed to the shippers. Besides coal, the cargo consisted of pig-iron, yet no precautions had been taken to guard against spontaneous combustion. While the captain was so badly supplied with charts that although when his cargo took fire he was within easy reach of four harbours he did not know of their existence and had to abandon his ship. In the words of the Court's finding, 'a loss of property to the

extent of several thousands of pounds might have been averted by the possession of a chart costing half a crown'.

That year Callaghan's hope of steam navigation to and from the islands was realized. A contract was entered into with the Kosmos Steamship Company of Bremen by which one of their steamers was to call at Stanley every month alternately, bringing the outward and taking the homeward mails. The steamers also called at Punta Arenas on both outward and homeward voyages. The subsidy required for this service was £1,800—£150 for each visit—of which the government contributed £1,000, the remainder being paid by the colonists. The same year H.M. ships of war *Raleigh* and *Garnet*, the U.S. ship *Marion*, and the German *Bismarck* visited the islands.

January 24th of the following year the vessels of the Detached Squadron entered Port William. Among them was the *Bacchante*, having on board her the two royal midshipmen Prince Albert Victor and Prince George, who set down in a workmanlike diary their impressions of the Falklands. 'The hills are rounded, bleak, bare and brownish like Newmarket Heath', they wrote; and further describe Stanley as looking 'like an Irish village snugly nestling on the hill-side in the distance'.[1] A warm welcome had been prepared by the colonists. Unfortunately the following day the Squadron received the signal 'to go to the Cape of Good Hope with all despatch'; so the dinner at Government House, and visit—arranged by Captain R. C. Packe—to the penguin rookery had to be abandoned; and only the *Garnet* and *Swallow* were left to represent the British Navy.

Some additions to Government House were sanc-

[1] Dalton (John N.), *Cruise of H.M.S.* Bacchante, *1879–1882*. Compiled from private journals, letters, &c., of Prince Albert Victor and Prince George of Wales, midshipmen. 1886, p. 305.

tioned that year; but from the unsettled state of the colony's finances—occasioned in part by the defalcations of the treasurer—the repairs were not begun until 1883, when it was found that much damage had been caused by damp. Other public works undertaken in 1883 included the strengthening of the new jetty at the dockyard; fencing the reserve at Navy Point; repairing the sea-wall, and the roads and drains in Stanley.

In spite of the years they had been a settlement the Falklands were as yet curiously undervalued, except by a faithful few. An officer of the squadron stationed on the South American coast—the ships of which generally visited the islands once a year, about Christmas time—describes them as 'a veritable *terra incognita* . . . their isolation promises to be yet more complete in the future, as soon as an inter-oceanic canal diverts commerce from the old to a new route. Up to now they have served as a half way house for sailing vessels on their way from Cape Horn'; [1] but even for this purpose their usefulness, continues the prophet, 'is nearly at an end'; and he further prophesies for their lonely inhabitants a doom 'like the surviving innkeepers of coaching days'.

In September, 1883, there died, in the person of Arthur Bailey, one who had known the settlement from its infancy. From 1848–73 he had been Surveyor-General. On the abolition of the office in 1873 he was granted a pension of £266 13*s*. 4*d*., and was appointed Police Magistrate, Coroner, Registrar and Receiver of Wrecks. At his death the Colonial Secretary, C. de Freville Green, was appointed to discharge these offices. Mr. Green was, in addition, Treasurer, Postmaster, Collector of Customs, Shipping Master, and Harbour Master. He died the following month, having been in the islands less than a year.

[1] *Chambers's Journal*, vol. 61, February 16, 1884, p. 110.

The health of the islands that year was by no means good. There were several cases of enteric and typhoid, due, declared Dr. Hamilton, the colonial surgeon, to bad drainage, the entire neglect of hygienic rules, and the absence of any hospital or sanatorium. The two schools in Stanley were crowded. It was hoped to raise sufficient money to build a church in the town, so that the room then used for divine service might be used as an additional schoolroom.

H.M. ships *Amethyst*, *Rambler*, and *Rifleman*, of the south-east coast of America squadron came to the islands that year during the close season, for the protection of the fisheries. H.M.S. *Thetis*, of the Pacific squadron, called at Stanley on her return to England and took on board two convicts with a warder, who were to be left at Malta. Two foreign ships of war also came to Stanley—the German *Marie*, on her way to South Georgia with the scientific expedition sent out by the German Government; and the French *Romanche*, which had taken a scientific party to one of the islands of the Fuegian group. Thirteen of the Kosmos steamships arrived at Stanley during the year; twelve being the contract mail steamers, and one an extra vessel for cargo. The Kosmos Company coasting steamer *Malvinas*, whilst on a voyage to West Falkland in January, ran on a reef near Saunders Island and was taken to Montevideo to be docked and repaired. The master and crew of the British barque *Jessica* which foundered near Cape Horn were brought to Stanley by the American vessel *P. C. Merryman*.

Two years later Governor Kerr left the islands owing to ill health; and in January, 1886, Arthur Cecil Stuart Barkly—son of Sir Henry Barkly, and the former commander of Barkly's Horse in Basutoland, where he was known as the Lion—was appointed Lieutenant-Governor. In his report for 1885 (dated March 20th, 1886) he describes that year as memorable

in the history of the Colony ' as being the first in which no pecuniary aid has been received from the Imperial Government . . . it is to be hoped that for the future these islands will be able to bear the whole charges of their own administration, although the cost of maintaining the mail service is somewhat heavy in proportion to the revenue, especially with the addition of £300 a year lately voted for the West Falkland service '. The unfavourable report by the colonial surgeon on the sanitation of Stanley led to efforts to improve the drainage of the town and to more adequate protection of the water supply from pollution.

In April of 1886 Admiral Kennedy visited the islands and took Governor Barkly over to Lively Island and Mare Harbour, in spite of a gale which continued for ten days in succession, with heavy squalls of snow and hail.[1] The *Ruby* (Admiral Kennedy) came over from Montevideo several times during the next few years. Very heavy rain fell in the winter of 1886, and caused a further peat slide in June. 'The peat bog behind the town of Stanley slipped last night,' wrote Governor Barkly to his father,[2] ' and a regular river of half liquid peat flowed down the mountain and ran across the very middle of the town into the sea. It has blocked up several streets, touched a house or two—although the damage in this way is less than one would have expected—and killed two people . . . we have cleared away most of the peat in the streets, and the rest will be cut as soon as it is dry. . . . It is not a regular Irish bog, as the authorities at home seem to think . . . but such an overflow as we have had here is of course very dangerous, and might have overwhelmed the town of Stanley.'

[1] Kennedy (Sir Wm. R.), *Sporting Sketches in South America*, 1892, p. 49.

[2] Barkly (F. A.), *From the Tropics to the North Sea.* (Including a Sketch of life in the Falkland Islands.) [18—], p. 131.

Lieutenant-Governor Barkly expected to be confirmed in his appointment and to remain on at the islands as Governor. But Governor Kerr, on recovering his health,[1] obtained leave to resume his duties, and returned to Stanley in 1887, while Barkly returned to the Seychelles and, later, was appointed Governor of Heligoland.

The building which suffered most damage by the peat slip was the church and school-house. An old store house was converted into a school at a cost of a little over £130. The parsonage, one of the oldest wooden buildings in Stanley, was also repaired; rooms were fitted up in the government offices for a post office and a printing office; the dockyard and the Government House garden were fenced in at a cost of £210, and repairs were made to the gaol, police guard-room, barracks, Government House, and to the cottages used as police quarters. The unusually large sum of £740 was spent this year on the roads and drains of Stanley; and an excavation was begun for enlarging the public reservoir, a cutting being made from the reservoir to a spring outside Stanley, and a pipe laid for bringing the spring water to the reservoir. Mr. Mark Kerr was appointed private secretary to the Governor, and also for that year performed the duties of Government Clerk, shipping master, Registrar General, Registrar of Courts, Receiver of Wrecks and Clerk of Councils; while Mr. H. B. L. Jameson, the Government Clerk, performed the duties of Colonial Secretary (during the latter's absence throughout the year), Treasurer, Coroner, Postmaster, Collector of Customs, Harbour Master and Police Magistrate. It is not stated if he found the work confusing.

H.M. ships *Ready*, *Swallow*, and *Watchful* visited the islands during the close season of the seal fishery;

[1] He died in August, 1907.

the U.S. ship of war *Juanita* came to the islands on her way to the Pacific. The American yacht *Brunhilde* touched at Stanley on her return from a voyage round the world, as did Captain Dewar's yacht *Nyanza*, of the Royal Yacht Squadron. The 'celebration of Her Majesty's Jubilee was observed in this, as in all other ports of her dominions, with every manifestation of loyalty and affection'.

The Rev. P. J. Diamond arrived at Stanley in April, 1888, in succession to the Rev. James Foran who had ministered to the Roman Catholics of the settlement since November, 1875.

There was much illness in Stanley; the schools were closed for several weeks owing to an epidemic of measles which prevailed from the end of August until late in October.[1] Admiral Kennedy in the *Ruby* again visited the islands, landing Bishop Stirling at Stanley, then taking him to Keppel Island; from thence they went south to Picton Island and visited the grave of Allen Gardiner and his companions, a sheet of copper being nailed round a tree near the grave to commemorate the *Ruby*'s visit. Remembering the circumstances of Gardiner's death it is odd to read Admiral Kennedy's description of Picton Island as 'a lovely spot, and Banner Cove . . . might bear comparison with the south coast of Devon'.

Of the twenty-one vessels which came to the islands thirteen were engaged in the trade of the colony; of these seven arrived at Port Stanley, one at Beaver Island, two at Roy Cove, one at San Carlos, one at Teal Inlet and one at Shallow Bay. The following year an ordinance was passed by which vessels arriving at any places other than Port Stanley were liable to tonnage dues at the rate of 1*s*. per ton on their registered tonnage.[2] A pilot schooner, purchased and

[1] This applies only to Stanley.

[2] An amendment to this ordinance was passed the following year

fitted out in England, was sailed to the islands by John Campbell, the Government Pilot at Port Stanley. Besides the usual visit of H.M. ships of the south-east Coast of America squadron (the *Ruby*, *Rifleman*, *Flamingo*, and *Swallow*) this year Port Stanley was further enlivened by the U.S. ship of war *Swatara* (flying the flag of Rear Admiral Gillis) and the Russian ship of war *Nayezdnik*, which latter called at Stanley for provisions on her homeward voyage from China. The year 1889 saw also the absorption by the Falkland Islands Company of the old firm of J. M. Dean & Sons.

On the 28th of March, 1891, Governor Kerr returned to England and the Hon. Frederick Sheddon Sanguinetti, acting Colonial Secretary, administered the Government until the arrival in April of Sir Roger Tucker Goldsworthy, K.C.M.G.

The report for 1890 is signed by the acting Colonial Secretary. In it he commented on the condition of most of the government buildings, describing them as ' inadequate in construction and accommodation for the uses to which they are put ; ' while the ' unformed streets and roads, and absence of proper drainage must lead to a very large expenditure in future if this is to be remedied '. He also remarked on the decreasing number of ships which put into Stanley Harbour ; saying it was ' to be feared that the delays and high charges incident to the repair of vessels here have rendered the port a place to be avoided if possible '.

Sir R. T. Goldsworthy came to the Falklands from British Honduras, where he was Governor and Commander-in-Chief. Born in 1837 he served during the Indian Mutiny in the volunteer cavalry of Havelock's forces, and assisted in the relief and defence of Lucknow. He was made K.C.M.G. in 1889. He was

as complaints had been made of the rates levied, which would be severely felt if large steamers called at West Falkland for frozen mutton, &c.

sworn in as Governor of the Falkland Islands April 13th, 1891. Unlike his predecessors he did not assume the office of Chief Justice, so that a new office of Judge Magistrate was created by ordinance I of 1891, which office was combined with that of Colonial Secretary and was assumed by his Honour Judge Routledge, the Hon. F. S. Sanguinetti ceasing to act as Colonial Secretary, &c., in December, 1891.

H.M. ships of the SE. coast of America Squadron which paid their usual visit were this year the *Magpie*, *Cleopatra*, *Beagle*, and *Basilisk*. The Chilian ship of war *Maipo* put in to Stanley for stores of coal, water and clothing.

The year 1892 was a somewhat memorable one in the history of the islands. On the 21st of February Christ-Church Cathedral was consecrated by Bishop Stirling. It was built on the site of the building ruined by the peat slide in 1886, since when a sail loft had been used as a church. Christ-Church cathedral —named after the great mother Church of Canterbury, from which came the oak from which was made a cathedral chair for the new church—was designed by Sir Arthur Blomfield. The foundation stone had been laid by Governor Kerr the 6th of March, 1890. The first five contributions towards the cost—estimated at £6,000 but which reached nearly £9,000—were from captains of merchant ships lying in Stanley Harbour. The first gift of all being three sovereigns from a merchant captain whose ship had foundered off Cape Horn.[1] The staff of the new cathedral was augmented by the appointment of the Rev. E. Coupland Aspinall, as Assistant Colonial Chaplain, the Rev. Lowther E. Brandon being made Dean of Christ-Church. Four days after the consecration of the

[1] Stirling (Waite H.), Bishop, *The Falkland Islands and Tierra del Fuego.* An appeal for funds for Christ-Church, Stanley. Buenos Aires, 1891.

cathedral, by Letters Patent dated 25 February, 1892, the islands attained the dignity of a colony. Hitherto they had been—officially—only a settlement. The new colony was proclaimed with fitting ceremony in the Court House, the Governor and other officials being sworn in to their respective offices under the new title. The same year saw the embodiment of a volunteer force throughout the colony, although it was not fully organized until the following year.

In February of 1892 there entered Stanley Harbour the Russian Corvette *Djihit*; and, later on in the year, from Scotland came four whaling vessels, on their way south.[1] H.M. ships of the SE. coast of America Squadron—*Cleopatra*, *Beagle*, and *Basilisk*—paid their usual visit. An unusual number of 'lame ducks' sought the islands that year, affording welcome employment to ships' carpenters, smiths, &c.

The following year, however, showed a marked decrease in the number of vessels which entered Stanley Harbour. This was attributed by Charles W. Hill, Acting Colonial Secretary, in his Report for 1893, partly to general depression of trade and the consequent decrease of vessels rounding Cape Horn; but principally to the lack of local enterprise in providing a dry dock and better facilities for repairs, and to the enhanced prices charged for repairs. So that a ship's master would sooner beat up at all hazards to Montevideo rather than be detained at Stanley.

In 1894, in order to bring the inhabitants of the West Falklands in closer touch with Stanley, Sir R. T. Goldsworthy appointed a commission to travel through the islands and make such suggestions as they deemed necessary for the improvement of inter-communication. The mail service was a heavy burden on the colony. In 1894 £1,800 was spent on the mail steamship; £360 on the local schooner—this was for mails

[1] For the Dundee whaling fleet see p. 241.

alone. The three years' contract with the German Kosmos line came to an end in 1895, and was renewed for a further five years, a condition being that a vessel was to call at Port Stanley regularly once every three weeks. The result of this was to establish more frequent communication with West Falkland, so that the Colony as a whole was brought into closer touch with the outside world. The new contract involved an annual subsidy of £2,500 as against £1,800 paid under the former conditions; the sum paid for the local subsidized schooner bringing the total up to £2,950.

A matter of some importance was the choice that year of a firing-range outside Stanley for H.M. ships of war stationed on the south-east coast of South America. Hitherto target practice had been carried out in the port of Colonia, Uruguay. The decision to use Stanley for the purpose was warmly welcomed; it meant more frequent visits of the men-of-war; and, moreover, rendered the islands of greater importance for naval purposes. The range was first used in 1896.

In that year nine vessels put into Port Stanley in distress. Besides these the American *City of Philadelphia*, in attempting to enter port on the 14th of May, struck the Billy rock off Cape Pembroke Lighthouse and went down with all hands before help could reach her.

The following comments by the Acting Colonial Secretary—Charles W. Hill—in his report for 1896, may be quoted here:

'In concluding this Report, I may justly be pardoned for once more dwelling upon the important strategic position occupied by these distant islands for imperial naval purposes as well as for a dépôt for coal and provisioning as for offence and defence. Public attention in England has long had a tendency to stop short at the River Plate, with the result that gradually, but none the less surely, has the English been supplanted by the German merchant along the coast of South

America. The . . . valuable services rendered by ships of H.M.'s squadron to vessels in distress should not be allowed to pass without recognition. But for these much valuable property must inevitably have been lost, while still more valuable lives would have been gravely jeopardized.'

The following year Sir Roger Tuckfield Goldsworthy was succeeded as Governor by his Excellency William Grey-Wilson, C.M.G. Born in 1852, educated at Cheltenham College, his first post in 1874 was that of private secretary to Sir William Grey, then Governor of Jamaica. He came to the Falklands from St. Helena, where he had been governor since 1890.

In 1900 the five years' contract with the Kosmos Company for the carriage of the mails came to an end. The German Company carried the mails for the first half of the year; then a contract was entered into with the Pacific Steam Navigation Company which agreed to provide a four-weekly service, touching at Rio and Montevideo, then going on to Punta Arenas and Valparaiso, and vice versa. The price paid for this service, inadequate as it was to the needs of the colony, amounted to about one-sixth of the total revenue. The fares for passengers were also very high. W. Hart-Bennett, in his Report for 1900, strongly advocated their reduction; he also recommended the erection of more and better houses. An attempt to solve the labour question had been made by bringing over Italian labourers from Argentina.

In the early part of the year came H.M. ships *Flora*, *Pegasus*, and *Swallow*; and in December the *Flora* and *Basilisk*. Then, more interesting than any warship, on the last day of the year there entered the harbour the *Antarctic*,[1] under Nordenskjöld. The stay of the Swedish Expedition at Stanley, the return there in

[1] Her captain was C. A. Larsen, formerly of the *Jason*. She had already sailed under Kristensen to Victoria Land in the Antarctic Expedition of 1894–5.

March, 1902,[1] the subsequent fate of the vessel in the ice-sea in February, 1903, and the rescue of her staff by the Argentine *Uruguay* under Captain Irizar has been told in more languages than one.

Less than a year after the *Antarctic* left Port Stanley came the *Scotia*—once the Norwegian whaler *Hekla*—her chief mission being deep sea research. She represented the Scottish Antarctic Expedition—the link between Scotland and the Antarctic has always been strong—under William Speirs Bruce, formerly the naturalist of the Dundee whaling expedition. She entered Port Stanley harbour the 6th January, 1903, and left again on the 26th, after receiving six weeks' supply of fine condensed water from Commodore Finnis of H.M.S. *Cambrian*. The Meteorologist of the expedition was R. C. Mossman, F.R.S.E., who was left for two years in charge of a Meteorological and Magnetical station at Scotia Bay, Laurie Island, one of the South Orkneys, which was afterwards taken over by the Argentine Government.[2] After an absence of eleven months, the *Scotia* returned again to Port Stanley. During her second voyage south she discovered Coats Land, named after the two chief promoters of the expedition.

As well as the *Cambrian*, H.M. ships *Basilisk*, *Nymphe*, *Beagle*, *Dwarf*, also the Chilian training-ship *General Barguedano*, visited the islands that year. A good deal of disappointment was caused in the colony by the abolition of the SE. coast of South America squadron, and the closing down at Port Stanley of all naval works. The base of the newly named South Atlantic squadron was henceforth to be Freetown,

[1] Nordenskjöld (N. Otto G.), J. Gunnar Andersson, &c., '*Antarctic.*' *Två år bland sydpolens isar.* 2 vols., Stockholm, 1904, i. 43. ii. 5.

[2] In the first fourteen years of its existence the Ministry of Agriculture of the Argentine Republic spent something like £70,000 on the Scotia Bay Observatory.

Sierra Leone; so to the islands no more would the warships come—their visits a welcome break to long monotony and a considerable benefit to the yearly revenue. The old naval range was handed over by the Admiralty for the use of the Volunteers.

In June, 1904, Sir William Grey-Wilson, K.C.M.G. (as he had become) left the islands on his promotion to the governorship of the Bahamas, and was succeeded at the Falklands by Governor William Lamond Allardyce (now Sir William Lamond Allardyce, K.C.M.G., Governor and Commander-in-Chief of Newfoundland). He arrived at the islands in September, having recently been Colonial Secretary of Fiji, where he had served since 1879. The spirit he brought to his duties may be imagined merely by the names of two monographs published by him, the Native Regulations 1877–93, in Fijian,[1] and a brief account of the Falkland Islands published in 1909.[2]

Before the arrival of the new Governor there came up from Punta Arenas, which she left on the 7th of July, 'racing out through the Eastern Narrows on the strong ebb tide', a heavy-rigged ship with sombre hull, bruised and buffeted by Antarctic ice. She was the *Discovery*, the name of whose commander (and leader of the British Antarctic Expedition)—Robert Falcon Scott—yet has power to stir the heart over all past anguished years. On July 12th she anchored in Port Stanley—the *Terra Nova* and *Morning* had already left the islands. There 'we replenished our stock of coal', writes Scott,[3] 'and took the last series of magnetic observations in connection with our Southern Survey. On the 20th we put to sea . . . to face the last long stage of our journey.'

[1] *Ai Vola ni Lawa i Taukei ka vakatekivu e nai vakatekivu ni yabaki e 1877* . . . Suva, 1894 [edited by W. L. Allardyce].

[2] *The Story of the Falkland Islands.* Falkland Islands press, 1909.

[3] Scott (R. F.), *The Voyage of the* Discovery. 2 vols., Smith, Elder, 1905, ii. 401.

The world knows now of the longer journey to come —even to the South Pole; 'the longest journey on record', writes the indefatigable hand in those last bitter days of March, 1912. Then the pencil falls— 'I do not think I can write more'; and the three friends lie in the wild blinding world of snow; their long journey ended and an unknown one begun.

In April, 1904, the schooner *Fair Rosamond* became a total wreck off Lively Island. No lives were lost, and she was replaced by the *Lafonia*, formerly a Mersey pilot boat. Both were owned by the Falkland Islands Company, and were two of the three coasting schooners which carried the mails between Stanley and Fox Bay. Apart from the delay attendant on wind and weather it took as a rule two months to get an answer from any place in the West Falklands outside Fox Bay. It was not until the following year that the small fleet of sailing craft was strengthened by the *Malvina*, 80 tons, and fitted with a four-cylinder oil-engine and a two-bladed propeller. There was no telephone communication between the stations, as in Patagonia, except the line between Stanley and Cape Pembroke Lighthouse. In September, 1906, however, a telephone exchange was established between Government House, the Colonial Secretary's office, the jail, the office of the Falkland Islands Company and Cape Pembroke Lighthouse. Following this an agreement was entered into between the Government and the Falkland Islands Company for the erection of a telephone line between Stanley and the Company's settlement at Darwin. The work on this line was sometimes hindered by the upland goose, which occasionally in its flight struck the wire with sufficient force to break it. The first message was transmitted between the two stations in November, 1907.

An isolation ward was equipped at the quarantine station in 1907 and a government nurse appointed.

The Colonial Surgeon again reported gravely on the defective sewerage of Stanley. The health report for this year was not good. Between 1906 and 1907 there was an outbreak of dysentery, followed by one of whooping-cough, at Stanley; diphtheria broke out at Third Corral North Camp (East Falkland); and beri-beri was brought to the islands by Canadian sealers.

Seventy-three years after Matthew Brisbane was murdered, Bishop, Governor and people assembled to do him honour. On the 3rd April, 1906, a new memorial was placed on his grave at Port Louis, the inscription—which had become barely legible—on the old tablet, setting forth the facts which led to his death, being reproduced on the new.

Towards the end of the year negotiations were entered into for the grant to a company to be formed in Buenos Aires of a monopoly of the government reserves of peat for compressed fuel. Many advantages were claimed for the product: it was cheap, practically smokeless; it occupied less space and had more heating power than coal; while its by-products were numerous.

His Excellency Governor Allardyce left the islands in April, 1907, on leave, returning the following September, the government during his absence being administered by the Colonial Secretary, H. E. W. Grant. On the Governor's return he delivered a message from the King, expressing His Majesty's deep personal interest 'in the prosperity and progress of all subjects in this far outpost of his dominions', and conveying to them his greeting and good wishes.

In June the fixed light at Cape Pembroke lighthouse was replaced by a white flashing light which showed one flash every ten seconds, viz.:

Flashlight .	0.65 seconds;
Eclipse .	9.35 seconds.

The intensity of the light being about 105,000 candle power.

This year the office of Colonial Chaplain was abolished, the government grant hitherto made of £400—£300 for the Colonial Chaplain, and £100 for an assistant clergyman—being reduced to £200. After thirty years' strenuous service to the colony the Very Reverend Lowther E. Brandon, Dean and Colonial Chaplain, retired on a small pension, and was succeeded by the Very Reverend Cyril H. Golding-Bird, M.A., as Dean of Christ-Church and Government Inspector of Schools.

Dr. Carl Skottsberg and Mr. Thore Halle, members of the Swedish Scientific expedition, arrived at Stanley the 26th October and remained there until February, 1908. Dr. Skottsberg gave a lecture early in January on the geological history of the islands. Their geological work in the colony is referred to in the chapter on *Stone-rivers*.

Among the shipping casualties of 1908 must be mentioned the case of the *Progreso*, 23 tons, of Stanley, belonging to Mr. L. Williams. On the 1st of July she left Stanley for Carcass Island. Caught by a gale, when off the Volunteer Rock she lost all sails and for two months drifted about without sight of land. At length she came near the Patagonian coast, when the master and the one remaining member of the crew took to the boats and were rescued by the Argentine authorities. The master was afterwards drowned.

This year of 1908 was marked by an event of paramount importance in the islands' history. On the 21st of July Letters Patent were passed under the Great Seal appointing the Governor of the Falkland Islands to be Governor of South Georgia, the South Orkney Islands, the South Shetland Islands, the South Sandwich Islands and Graham Land, and providing for the government thereof as Dependencies of the

Colony. This vague, inadequate title of Dependencies of the Falkland Islands comprehends the land between longitude 20° W. and 50° South of latitude 50° S., and between longitude 50° W. and 80° W. south of latitude 58° S. These boundaries include a sector of the Antarctic land area to the south and south-east of Cape Horn, numerous islands in the Southern Ocean, and also more than a million square miles of sea readily accessible for whaling, fishing and sealing, the total area amounting to about three million square miles, or one-and-a-half per cent. of the whole surface of the globe.

The history of the discovery, physical aspects, and development of this enormous area lies outside the scope of this small volume, and must be dealt with by abler hands. Already many scattered threads lie ready to be woven into one great whole. They were added to by Shackleton, in the knowledge gained by his epic journey (as leader of the Imperial Trans-Antarctic Expedition of 1914–17) when for the first time the Weddell Sea was used as a base for exploration; added to again by the later voyage of the *Quest*.[1] In time the knowledge so gained will be available to the historian and scientist.[2]

Now that the Falkland Islands no longer form a separate colony but only a fragment of the sub-antarctic portion of Great Britain's domain in the Southern Ocean these rough imperfect notes must cease. What later material progress has been made will be found noted in the chapter on statistics. A few outstanding events must just be touched on, ending with the strangeness of that brilliant summer day in 1914 when the obscure islands flamed up in glowing wonder before the watching world, then sank again to dimness.

[1] And yet again by the proposed expedition of the *Discovery* in 1924.

[2] It is much to be regretted that the reports of the scientific results of the late Dr. Bruce's exploration in the *Scotia*, 1902–5, are not yet completed.

In 1912 was erected on the top of a ridge at the east end of the Murray Heights, about two miles from Stanley, the wireless station which was to prove so invaluable two years later. The Governor laid the west mast foundation plate on the 27th of March. The installation was finished in August, in which month W. D. Lacey,[1] with an assistant, was appointed to the station which was formally opened by the Governor in September. The station proved of the utmost value when the R.M.S. *Oravia*, of the Pacific Steam Navigation Company, ran on the Billy rock off Cape Pembroke Lighthouse on the night of the 12th November. The accident was at once 'wirelessed' to Stanley, and the authorities there sent all available help to the stranded vessel. Passengers, ship's company and mails were all brought to Stanley, which had to provide for over 400 unexpected visitors. The ship's two wireless operators were quartered at the wireless station, where they helped to deal with the pressure of work resulting from the wreck.

It was not the first time that year Stanley had welcomed shipwrecked people. The previous July the sailing-ship *Criccieth Castle*, 1,877 tons (Captain Robert Thomas), bound for Antwerp with 2,850 tons of guano, was struck in the South Atlantic, about 100 miles from Stanley, by a tremendous sea which broke the rudder shaft. The ship leaked badly and the pumps would not work. The master, his wife and child, and fourteen hands took to the lifeboat, while the remainder of the crew embarked in the long boat. At first the two boats kept together; then they drifted apart and the long boat was never seen again.

[1] He contributed a racy account of his arrival at the station to *The Wireless World*, December, 1916, pp. 693–8. During the war the Uruguayan Government permitted the transmission to the station of official messages in cipher from Cerrito, but the Chilean authorities insisted that messages from Punta Arenas should be sent *en clair*.

The lifeboat made for the Falkland Islands and reached Cape Pembroke lighthouse after seven days and nights of terrible suffering and exposure to which three of the crew succumbed. The survivors, who were badly frostbitten, were brought to Stanley the same evening and taken to the Victoria Cottage Home, where two subsequently died.

In August, 1913, Governor Allardyce left the colony on leave, returning the following April. During his absence the Government was administered by the Colonial Secretary, Captain John Quayle-Dickson, who left the colony in June.

The following November Governor Allardyce was appointed Governor of the Bahamas, his successor at the Falklands being W. Douglas Young, C.M.G., late Administrator of St. Lucia, British West Indies. But no actual change of Governors took place in 1914 for very cogent reasons.

Tidings of the outbreak of war came to the islands in August. News filtered through but slowly; the mails became increasingly erratic. But the Colony was comforted by visits, for coaling purposes, of a small squadron[1] under Rear Admiral Sir Christopher Cradock, who, with the *Good Hope*,[2] the *Monmouth* and *Glasgow*, was on the scent of three German cruisers—the *Leipzig*, *Dresden*, and *Nürnberg*—suspected of having retired to coal in the Strait of Magellan. The British Squadron arrived at Punta Arenas the 28th of September, and spent some days in searching the intricate coast of Tierra del Fuego—

[1] A newly-formed squadron of British ships patrolling the trade routes and protecting the merchant shipping in South American waters.

[2] The flagship. Admiral Cradock hoisted his flag in her the 16th of August. The telegram from the Admiralty directing him to make the Falkland Islands his coaling base is dated 14 September. The same telegram informed him that the *Canopus* was on her way to the Abrolhos rocks—the secret coaling base in South American waters.

actually passing through Cockburn Channel to Orange Bay. The *Good Hope* and *Monmouth* then returned to the Falklands, the *Good Hope* finally leaving the islands October 22nd. Three days previously, on account of a possible raid by the Germans, the women and children of Stanley were sent either inland into the camp, or else to West Falkland. This meant for many women a night on the deck of a steam whaler, the bridge of which was swept by icy seas.

The *Canopus* was timed to reach Port Stanley on the 15th of October, but owing to bad weather she did not appear until a week later, and then she required two or three days for an overhaul before she was fit for sea again. Therefore Admiral Cradock left Stanley without her, and passed down round the Horn and up the coast of Chile. He joined the remainder of his little squadron—the *Monmouth*, *Glasgow*, and armed liner *Otranto*—on the 29th of October. On the afternoon of November 1st, off the Bay of Coronel the enemy was sighted—not the three expected cruisers only, but with them the great *Scharnhorst* and *Gneisenau* (which were among the best shooting ships of the whole German Navy), the whole being under the command of Admiral Graf von Spee.

The tragedy of Coronel is too well known to be repeated here. Outnumbered, against an overwhelming force, with all the odds—the very sunset glow—against him, Cradock fought. At 6.18 he called up the *Canopus*, which, old as she was, with her four 12-inch guns might have saved him,[1] and told her he was going to attack. She answered, and gave her position, which was 250 miles away. It was just after 7 when von Spee opened fire. The fighting waxed fiercer as the daylight waned. Then, through the darkness, stilling every heart in horror, there came

[1] The cruiser *Defence* was sent, but too late to help him; she did not reach Montevideo until the 3rd November.

a roar which seemed to rend sea and heavens, and a sheet of flame leaped nightwards. Then the waves tossed wreckage—black wreckage in the glare. The *Good Hope* had blown up ; a shot had reached one of her magazines. So died Christopher Cradock and his men.

The *Monmouth* was nearing her end. Before the explosion that rent the flagship she was reeling and shaking, her guns thundering intermittently. Afterwards she left the line, steaming with difficulty, her course erratic. The *Glasgow* stood by her for a time. By then the *Monmouth*'s bows were under water, the men were gathered at the stern. A heavy sea was running ; the *Glasgow* could not save, neither could she hope to contend with the enemy armoured vessels ; moreover there was the *Canopus* to be warned. Heavy-hearted she moved away into the night. And, as she left, the *Monmouth* cheered her, again, and yet again. Then, half sinking, made one last heroic effort to ram the approaching *Nürnberg* and finally capsized.[1]

Although subjected for nearly an hour to the combined fire of the *Leipzig* and *Dresden* the *Glasgow* had received no vital hurt. It took her some hours to get into communication with the *Canopus* (who had left Port Stanley the day after the *Good Hope*, hurrying to reach her) for the Germans were jamming the wireless. When the *Canopus* received the heavy tidings she turned south towards Magellan Strait, met with the *Glasgow*, and they went towards the Falkland Islands together.

News of the disaster reached Port Stanley through an unsigned wireless message on November the 3rd.

[1] Von Spee reported that the *Nürnberg* sank the *Monmouth* at 9.28 p.m. by bombardment at point-blank range. For the German account see *Der Krieg zur See, 1914–1918*. Berlin, 1921, &c., i. 217. The following month the *Nürnberg* was to meet much the same fate from the *Kent*.

Then uncertainty was changed to consternation and grief the following day by a telegram from Captain Luce of the *Glasgow* confirming the news, and adding that he and the *Canopus* were running with all speed for the Falklands and would probably be followed by the victorious German squadron.

These were not pleasant tidings. The islands were virtually defenceless. For although on the outbreak of war the volunteers were called out on active service under Major (hon.) H. M. S. Turner and reached a very high degree of efficiency,[1] they were at most but a few hundred men, their most powerful gun a 12-pounder 8 cwt. field gun lent by the *Glasgow*. Neither could the message sent by the Admiralty on November 5 be regarded as markedly helpful:

'German cruiser raid may take place. All Admiralty colliers should be concealed in unfrequented harbours. Be ready to destroy supplies useful to enemy and hide codes effectively on enemy ships being sighted.'

On receipt of this warning the few non-combatants yet remaining in Stanley were sent away; another hundred horses were brought in from camp, that every man might be mounted; stores of provisions were hidden within easy reach of the town; official documents and code books were buried at night and dug up and dried the next morning; many of the inhabitants buried their valuables.

While these preparations were taking place there arrived at Port Stanley, early in the morning of Sunday, November 8, the *Canopus* and *Glasgow*. The *Glasgow* at once began to coal, volunteers among the islanders helping in the work. After coaling she was sent to join the *Defence* near Montevideo. The *Canopus* comforted the colonists by a promise to remain with

[1] Eight were accidentally drowned on December 1 'in the performance of military duties'.

them ten days. The same morning, however, Captain Heathcoat Grant received a wireless message from the Admiralty ordering him north with the *Glasgow*. So the same day departed battleship and cruiser, and Stanley once more was left defenceless with the knowledge that a powerful German squadron, flushed with victory, its present whereabouts unknown, was in all probability making for the islands.

On the same day that the *Glasgow* and *Canopus* arrived at, and left, Port Stanley, Vice-Admiral Sir Frederick C. Doveton Sturdee left the Admiralty and came down to Devonport to hoist his flag in H.M.S. *Invincible*. Two days later the *Invincible* and *Inflexible* left Devonport under Admiral Sturdee, temporarily appointed Commander-in-Chief South Atlantic and South Pacific. When joined by other cruisers in the South Atlantic waters [1] his instructions were to seek out and annihilate von Spee's squadron. A message reached the Admiralty which seemed to show that von Spee was going to Mas-a-fuera, so they decided that the Falklands were essential as a coaling base and must be protected. The previous orders sent to the *Canopus* were therefore cancelled, and when half way to Montevideo Captain Heathcoat Grant received a message directing him to return to Port Stanley, moor his ship so as to command the entrance to the harbour, extemporize mines outside the harbour, take down her topmasts and be prepared for bombardment. So the *Canopus* returned, with perhaps not overmuch enthusiasm for the duty. When near the islands on November 12 she tried to get into wireless communication with Stanley, but for some unknown reason was unable to do so. She came therefore to the conclusion that the Germans had arrived, raided Stanley, destroyed the wireless station

[1] He reached the Abrolhos rocks November 26, and dispatched his three fastest colliers to the Falkland Islands.

(which is about three-quarters of a mile WSW. from Hooker Point) and were in possession. She immediately cleared for action, loaded and trained guns, and then steamed into the harbour, prepared for the worst. When this hostile apparition was seen from the look-out station making for Stanley harbour from the eastward there was much commotion. Church and dockyard bells gave the alarm; the volunteers paraded with horses ready and emergency rations in their saddle bags. Then came signals, mutual recognition, and proportionate relief.

The *Canopus* once in harbour, Captain Heathcoat Grant—very ably seconded by Major Turner and his volunteers, who were indefatigable in preparing land defences—began defensive works which were carried out in bitter weather. In order to protect the wireless station the *Canopus* entered the inner harbour, sat firmly in the mud, and there remained, in such a position as to command the southern approach. She was hidden from view by the low-lying, narrow spit of land which lengthens out to Hooker Point; and over which she would be able to fire. A look-out station was set up in Sparrow Cove and three 12-pounder batteries were hastily constructed to dominate the approaches. A row of electric mines, made out of old oil drums, reached between Arrow Point and Yorke Point. Port Stanley was then ready for the enemy; but he did not come, although on the 25th the *Canopus* took in a signal that von Spee had actually rounded the Horn. November slipped into December, high summer drew on its way. Women and children returned to Stanley and by degrees apprehension died down.

Where was Admiral Graf Spee? Almost out of touch of wireless, he was keeping well away from the trade routes; sailing south in rough weather and formulating plans—urged on, it would seem, by others

—for the capture of the Falkland Islands. An officer in the *Gneisenau* writes:

'Dec. 3rd. lying at the eastern exit of the Beagle Channel close to Picton Island. . . .

'Dec. 6th. We are going to Port Stanley.'[1]

Where was Admiral Sturdee? He was coming secretly and swiftly towards the Falklands, careful not to use his wireless; his two great modern battle cruisers having been joined by the lesser *Carnarvon*,[2] *Cornwall*, and *Kent*; the yet smaller *Bristol* and *Glasgow*; and the armed liner *Orama*. Each squadron was ignorant of the nearness of the other. The fate of Stanley depended on which should reach her the first.

At 10.30 on the morning of December 7th the British squadron steamed in to Port William and anchored there, with the exception of the *Bristol* and *Glasgow* which passed into Stanley harbour. The *Bristol*, *Glasgow*, and *Inflexible* at once began to coal; the others were to wait their turn; there were only three colliers then at Stanley, as the squadron colliers had not yet arrived. The squadron was preparing to take in stores and refit, ready for a hunt round Cape Horn after von Spee. But the German Admiral, flying his flag in the *Scharnhorst*, was even then approaching.

When within about fifteen miles of the islands von Spee sent the *Gneisenau* and *Nürnberg* on ahead to reconnoitre.

At 7.56 a.m. on the 8th December, which dawned fair and calm, when the *Invincible* was busy coaling, the *Canopus* signalled that smoke was in sight to the southward. The *Glasgow*, who took in the signal, fired a gun to attract the flag-ship's attention, which was wholly taken up with coaling. In many of the ships fires were out; the *Bristol* had both engines opened up; the *Invincible*, *Inflexible*, and *Carnarvon* were in

[1] Pochhammer (Hans), *Graf Spee's letzte Fahrt*. Berlin, 1918, p. 202.

[2] To which Admiral Stoddart had just shifted his flag.

the act of coaling; the work performed in the engine-rooms was nothing short of marvellous. At 8.10 a.m. the *Kent*, with a minimum of coal in her (she had been waiting her turn to coal), passed down the harbour and took up her position at its entrance, replacing the *Macedonia*.[1] At 8.30 'Action' was sounded off and coaling ceased.

The four-funnelled *Gneisenau* and three-funnelled *Nürnberg* came nearer, bearing towards the wireless station, to protect which the *Canopus* opened fire on them with her 12-inch guns. It was a veritable bolt from the blue, for the Germans could not see her. They changed their course and came threateningly towards the *Kent*, being then only 14,000 yards off, the *Scharnhorst*, *Leipzig*, and *Dresden* being seen farther away to the southward. Then the *Gneisenau* caught sight of the tripod masts[2] of the two battle cruisers. Amazed to find such a force at the Falklands she sent the news to the *Scharnhorst*. Outmatched in weight of guns and numbers von Spee hurriedly withdrew to the south-east.

At 9.40 the *Glasgow* weighed to join the *Kent* which went tearing along towards the enemy at a knot faster than her official speed—everything wooden was burnt, there was a general onslaught with hatchets. Then five minutes later the 'two big ones' cast off their colliers and sped after her in grim—and grimy—majesty, the *Carnarvon* and *Cornwall* with them. There was a clear sky and brilliant sun and a gentle breeze from the north-west. And with the warships went white-breasted birds—the great albatross and molly-mawk.[3] All Stanley gathered on the hill behind the town to watch the chase; the vessels were in sight for two hours.

[1] An armed merchant cruiser. She joined Admiral Sturdee on December 3. The *Orama* had been dispatched as escort to the colliers.

[2] Only Dreadnoughts had tripods.

[3] *Diomedea melanophrys*. Molly-mawk is a corruption of Mallemuck—the German rendering of the Dutch *Mallemugge*.

10.20 the signal was made for a general chase. By this time the enemy's funnels and bridges showed just above the horizon.

11.27 news came from the *Bristol* that three enemy ships had appeared off Port Pleasant—probably colliers or transports. They were first seen by Mrs. Roy Felton of Fitzroy. The *Bristol* was thereupon ordered off with the *Macedonia* to take them, which order bitterly disappointed every one on the *Bristol*—except perhaps the ship's cat, Minnie.

At 12.47 p.m. (after dinner) the signal was made to 'open fire and engage the enemy'. The *Inflexible* fired the first shot; then the *Invincible* opened fire on the *Scharnhorst*.

The Battle of the Falkland Islands has been so fully and so admirably described by those who took part in it—officers of the *Invincible*, *Inflexible*, *Cornwall*, and *Kent* [1]—that it is only necessary to give here a rough outline of what occurred before the victorious squadron returned to Port Stanley.

There were three separate encounters on December 8th after the war-ships came out of Port William:

i. The action with the armoured cruisers: *Invincible* and *Inflexible* (and later the *Carnarvon*) against the *Scharnhorst* and *Gneisenau*; this was over by 6 p.m.

ii. The action with the light cruisers: *Glasgow*, *Kent*, *Cornwall*, against the *Dresden*, *Leipzig* and *Nürnberg*. This contest, as far as the *Cornwall* and *Leipzig* were concerned, was prolonged into the darkness.

iii. The action with the enemy's transports. In this the *Bristol* and *Macedonia* captured and sank the two German colliers, *Santa Isabel* and *Baden*, during the afternoon, and brought their crews as prisoners into Port Stanley.

[1] See Bibliography, p. 394.

1. The *Gneisenau* and *Scharnhorst* opened fire at 1.30 p.m. Their fire was steady and accurate, the persistency of their salvoes remarkable. At 1.45 the *Invincible* was struck for the first time. During the thick of the contest a full-rigged sailing-ship came out of the distance, passing away from the battle cruisers. Painted white, her sails shining yet whiter in the sun, she came and went like a dream, cool, aloof, and beautiful in contrast with the smoking monsters thundering death.

At 3 the *Scharnhorst* was on fire; an hour later both her masts and all her funnels were shot away and she was listing heavily to port; but she still continued to fire. Seventeen minutes later she sank like a stone, her flag still flying, and disappeared completely with every soul on board. Over 800 men, including Admiral von Spee,[1] went down. There was no rescue for the struggling bodies in the water. A quarter of an hour later when the *Carnarvon* passed over the spot neither survivors nor wreckage were to be seen.

After the loss of her consort the *Gneisenau* fought on gallantly against heavy odds—the *Invincible*, *Inflexible*, and *Carnarvon* all three concentrating on her from different bearings. By 5.15 she had fired her last effective shot, though she still continued spasmodic firing. Just before six she turned over and sank, the ensign at her peak still flying. Some 600 men on board her had already been killed. A rush was made to rescue the survivors. The sea was now rough, the sky overcast; rain was falling. The men in the icy water were many of them wounded, some in the last stages of exhaustion, horror-haunted and burnt. About 170 were saved, including the commander of the *Gneisenau*.

[1] His two sons lost their lives in the same action. The German loss that day was some 2,260 men all told. Admiral von Spee's last signal was to the *Gneisenau*, to save herself.

ii. Away to the south the action between the *Cornwall* (and secondarily the *Glasgow*) and *Leipzig*—the *Dresden* got clear away—continued; the German returning his antagonist's fire until past 7, when it was seen he was on fire the whole length of the ship. At 8.12 he sent up signals of distress, at which the *Cornwall* got out the only two boats not holed. Searchlights were used, but only fifteen men were saved, of which six were officers. Hit again and again the *Cornwall* suffered but one casualty—a solitary pet canary.

After chasing the *Nürnberg* for several hours, at last, owing to a light ship, a clean bottom, and some most remarkable stoking, the *Kent* got within range of her, and at 5.9 the fight began, the guns making one continuous thunder. Both ships were damaged. At one time the *Nürnberg* made as though—like the sinking *Monmouth* at Coronel—she would ram her opponent. She continued fighting, though a helpless wreck, and on fire along her forepart. Not until 6.57 did she haul down her colours. Then life saving began. But almost every boat had been riddled, the wind was rapidly rising, and in spite of all efforts only twelve were saved, of whom five died almost as they were being lifted on board. While boats were repairing the *Nürnberg* quite quietly heeled over on her side and went down, a few men gathered aft and holding the ensign flying till the ship went under.

As darkness set in there loomed out of the mist, like a ghost ship, a great four-masted barque under full canvas. Dimly as she came, so she passed away, as though in very truth the wraithship said to appear at every British naval fight.[1]

The *Kent*'s search for survivors continued for many hours. Then, well battered, her foretop-gallant-mast

[1] It was the same ship seen previously when the battle cruisers were in action. It was found out afterwards that she had been at

gone, with five killed and eleven wounded (of whom three afterwards died), she turned north-westward. It was not known what had become of her, and through the night the wireless called her 'Kent, Kent, Kent'. But though she received the call she could not answer as her transmitting instruments had been wrecked by a shell. A thick fog rose up that night. She entered Port William the afternoon of the following day and found the *Cornwall* returned to coal. The other ships were scattered south, hunting for the *Dresden*—the *Bristol* being particularly eager to capture 'Flossie'. But after a fruitless search around Tierra del Fuego[1] the vessels returned and by the 11th the whole squadron was lying once more at Port Stanley.

Port Stanley welcomed the victors with the wildest joy, showering every possible gift upon them. Governor Allardyce visited the flag-ship to congratulate Admiral Sturdee. Admiral Sturdee on his part thanked the Governor and Colony for the timely warning received; and expressed the squadron's satisfaction at having prevented 'an old British Colony from being insulted or injured'. Neither did he forget to pay due tribute to the work done by the operators at the wireless station, which he declared to have been 'absolutely invaluable to the squadron during its stay in the Falkland Islands'.

In his thanks to the squadron the Commander-in-Chief congratulated all on their 'success against a foe who displayed splendid courage, determination and efficiency'.

sea so long that she knew nothing of the war until she was actually a spectator at two engagements.

[1] The *Dresden* was said to have coaled at Punta Arenas. As is now well known she evaded capture until the following March, when the *Kent*, *Glasgow*, and *Orama* ran her to earth near Juan Fernandez Island.

Among the sheaf of telegrams was one—reading strangely now—from Petrograd, conveying the Russian Navy's 'heartiest congratulations' on the British squadron's 'brilliant action'.

One by one in the following days—their dead buried at Port Stanley, their wounded left in hospital [1]—the war-ships left for other seas. Stanley was left alone. War seemed to touch the islands with a gentle finger. Outwardly there was but little change. Some fewer men, heavier work for those left, generous contributions to charities [2]; besides, life seemed to go on much as before. If strange forces are set free by violence and destruction, by the long, dark, mutual cruelty of man and bird and beast, they move as yet unknown to our gross human senses.

Unchanged seem earth, and sky, and sea. At times the rugged islands, illumined by a sunset that transfigures them, look as they did of old to sailors struggling north, after being storm-tossed about Cape Horn and cruel San Diego—a veritable City of Refuge, a haven to be reached and entered with deep-breathed thankfulness—*post tempestatem tranquillitas.*

[1] The King Edward Memorial Hospital and the Victoria Cottage Home were taken over by the naval authorities and managed with the assistance of the civil staff.

[2] The islands' contribution to the Prince of Wales's Fund was at the rate of over £1 a head.

IX

A NOTE ON PORT STANLEY

Clear as an etching Sir Ernest Shackleton's acid-bitten outline of Port Stanley as a place of one street with 'the slaughter-house at one end and the cemetery at the other' remains in the memory after more kindly and accurate descriptions have faded. But to him the place was a prison, and he paced Ross Road with all his thoughts on the men waiting for help at Elephant Island over five hundred miles away.

Port Stanley lies scattered along the southern slope of the harbour bearing the same name. The harbour itself is land-locked—indeed, it may almost be described as a floating dock within the harbour of Port William, with which it is connected by a passage known as the Narrows.

The site of the town was chosen in 1842, and the future seat of government was named after the then Secretary of State for the Colonies. By 1848 sixty houses had been erected. Villiers Street was planned in 1844, the same year as Government House was begun. The latter, which lies to the west of the town, as designed by Governor Moody was to be a mansion consisting of a centre and two wings, and it was not finished until 1864. Old Government House was a one-storied wooden building, and, judging from the list conscientiously compiled for the Report of 1855, the furniture of the reception rooms did not err on the side of luxury, there being but 'one easy chair', while the sole ornament seems to have been 'one portrait of the Queen'.

Westwards of Government House is old Sulivan House, which looks out over the head of the harbour.

PORT STANLEY LOOKING NORTH

VIEW ACROSS THE HEAD OF STANLEY HARBOUR

showing Sulivan House on the left of the jetty

It was built by Captain (as he was then) B. J. Sulivan when, for the third time, he returned to the islands. It was afterwards taken over, and added to, by Captain R. C. Packe, who came out to Port Stanley soon after 1850 and, with his brother Edward, who joined him in 1866, was closely associated with the development of the colony for over thirty years.

At the town's eastern end (the sea-wall of which was built in 1907) are the offices of the Falkland Islands Company. Other houses lie against the slope of the hill and reach almost to the water's edge. Above them all rises Christ-Church Cathedral. Other public buildings include the King Edward Hospital, completed in 1912, its east section forming the new Victoria Cottage Home. The former Home had been in turn a shelter for immigrants, theatre, coal-shed, and government school. Away over the hill at the back of the town, and far to the westward, the undulating camp stretches for many miles; but to many the life of the islands centres round Stanley Harbour.

In the harbour are several piers, some of which have at their free ends a wooden hulk. Almost mid-way between the north and south shores of the harbour is the hulk of the once famous *Great Britain*. It seems an ignominious ending—slow decay for one who was once the wonder of the shipping world, whose very misfortune [1] only added to her fame. Begun in 1839, finished by 1843, Bristol-built by Paterson after the designs of I. K. Brunel (consulting engineer of the Great Western Steamship Company, her owners), she was a triumph for both designer and builder. She was at once the largest ship in the world, the first to

[1] On her fourth voyage from Liverpool to New York she was stranded in Dundrum Bay and lay aground for eleven months. An unprecedented interest was taken in her release, the details of which were published at Bristol and afterwards laid before Parliament.

be built of iron, and one of the earliest to be propelled by means of a screw, though she was not a steamer but a sailing vessel (she was first rigged as a four-master, and then as a six-masted schooner) with an auxiliary engine. She was intended for the Atlantic trade, but there being then no dock in New York large enough to hold her, for some years she traded between Liverpool and Australia, helping to regain for Great Britain her lost supremacy in the world's ocean-carrying trade. Now she lies in Stanley Harbour, her sides below water-line covered with a marvellous fauna.

Running through the town parallel with Villiers Street is Philomel Street; Hebe Street and Fitzroy Road, although they had existed for some time previously in name, were not formed and drained until 1888.

At the end of a promontory near Port Stanley is Cape Pembroke lighthouse, the first lighthouse keeper being William Creed, who was appointed in November 1855, at a salary of £150 a year. The promontory on which the lighthouse is built is one great sand-bank, owing its existence to the prevailing south-westerly winds. These sand dunes (of which there are many on the islands) 'absorb the sun's heat by day and are subject to strong radiation at night, which doubtless strongly influences the direction of the wind, owing to the unequal heating of the land and the contiguous water surfaces, the effect being partially increased by the land mass of the Falklands lying to the westward'.[1]

Some of these sand deposits may yet prove of economic value, being often very white and of conspicuous uniformity of grain. Dr. Baker, the Govern-

[1] Mossman (R. C.), *Report on the Scientific Results of the voyage of S. Y.* Scotia *during the years 1902–4.* (Scottish National Antarctic Expedition.) Vol. ii, Physics. Edinburgh, 1907, p. 292.

ment Geologist, in his Report[1] just issued, considers that, as far as mechanical constitution is concerned, these sands are quite satisfactory for use in glass-manufacture, the presence of aluminium rendering them suitable for thermometer-glass, which has to stand repeated melting, blowing, and fusing without change.

Large shoals of mullet[2] may be seen near Cape Pembroke. In the past, as has been said, the Spaniards and, notably, Louis Vernet, did their best to cultivate the fisheries of the islands. In 1851 Governor Rennie reported that several creeks within thirty miles of Stanley had been rented on five years' leases, with a view to a more systematic prosecution of the fisheries. But ten years later his successor wrote: 'The experiment has been tried in salting mullet-fish but has failed, requiring too large a capital to commence upon for creating sheds, etc., for drying the fish after salting.'

There are also various species of fresh-water fish, locally known as 'trout'. In 1894, moreover, a suggestion was made that, through the help offered by the Marquess of Exeter, salmon ova should be introduced into the trout streams of the islands. In spite of the known presence round the coast of a large number of fish (chiefly *Nototheniidae*), there has been a complete absence of trawling experiments. Yet, from her position, Port Stanley may yet become the base for the development of a new southern fishery that shall supply in part the South American market.

As yet scarcely developed she looks out seawards—

[1] Baker (H. A.), D.Sc., *Final Report on Geological Investigations in the Falkland Islands, 1920–2.* [1924] pp. 37–8.

[2] *Eleginus maclovinus.* For information on the fishes of the Falkland Islands see Boulenger (G. A.). A List of the Fishes collected by Mr. Rupert Vallentin in the Falklands, with Notes by the Collector. (*Annals and Magazine of Natural History*, ser. vii, vol. vi, July 1900, pp. 52–4.)

a small grey town beneath windy skies. Unattractive at first sight, slowly, painfully brought into being by men content to endure hardness, taken up with the day's labour, none the less pioneers. Yet over the seeming harshness breaks here and there some hint of beauty—the homely smell of burning peat, the rare flash of sun on sea or blossom. While in the men who made her will be found patience, a great courage; with, for the lonely voyager, a kindliness beyond words.

X

GOVERNORS, ETC., OF THE FALKLAND ISLANDS

In command of the French settlement in East Falkland.

April 1764 to April 1767. G. de Bougainville-Nerville, *Capitaine d'Infanterie.*

Naval officers in command of the British settlement at Port Egmont, Saunders Island.

1766–1767. Captain John W. McBride, of H.M.S. *Jason.*

[1767][1]–1770. Captain Anthony Hunt, of H.M.S. *Tamar.*

1770 (March)–1770 (July). Captains George Farmer, late H.M.S. *Swift,* and William Maltby, H.M.S. *Favourite.*

1771–1773. Captain Burr, H.M.S. *Hound.*

1773–1774. Lieutenant S. W. Clayton, H.M. shallop *Penguin.*

In command of the Spanish settlement in East Falkland.

1767–1774. Felipe Ruiz Puente.

1774–1777. Francisco Gil.

[1777–1781]. Ramón Caraza.

[1781–1784. Augustin Figueroa].

1784–1790. Ramón Clairac.

1790–1793. Juan José Elizalde.

1793–[1799]. Pedro Pablo Sangineto.

[1799]–1805. Ramon J. Villegas.

1805–1806. Juan Crisóstomo Martínez.

ARGENTINE GOVERNORS AT EAST FALKLAND

1823–1828. Pablo Areguati.

1828–1832. Louis Vernet.

1832 (September, murdered the following December). Juan Esteban Mestivier.

1832 (December)—1833 (January). José Maria Pinedo, of the *Sarandi.*

[1] Names and dates in brackets should be accepted with some reserve.

NAVAL OFFICERS IN CHARGE

1834–1838. Lieutenant Henry Smith, H.M.S. *Tyne.*
1838–1839. Lieutenant Robert Lowcay, H.M. ketch *Sparrow.*
1839–1841. Lieutenant John Tyssen, H.M. ketch *Sparrow.*

GOVERNORS AND COMMANDERS-IN-CHIEF

1841 [1]–1847. Richard Clement Moody, *Lieutenant R.E.*
1847–1855. George Rennie.
1855–1862. Thomas Edward Laws Moore, *Captain R.N.*
1862–1866. James George Mackenzie, *Captain R.N.*
1866–1870. William Cleaver Francis Robinson.
1870–1876. George A. K. D'Arcy, *Brevet Colonel.*
1876–1880. T. F. Callaghan, C.M.G.
1880–1886. Thomas Kerr, C.M.G.
1886–1887. Arthur Cecil Stuart Barkly.
1887–1891. Thomas Kerr, C.M.G.
1891–1897. Sir Roger Tucker Goldsworthy, K.C.M.G.
1897–1904. William Grey-Wilson, C.M.G. (afterwards K.C.M.G.).
1904–1914. William Lamond Allardyce, C.M.G.[2]
1914–1920. W. Douglas Young, C.M.G.
1920. John Middleton, C.M.G.[3]

BISHOPS

1869–1902. Waite Hockin Stirling.[4]
1902–1910. Edward F. Every.[5]
1910–1914. L. F. D. Blair. (The see was vacant from 1914.)
1919. Norman S. de Jersey.

[1] His appointment is dated 23 August, 1841.

[2] Now K.C.M.G. In 1920 he became Governor of Tasmania.

[3] Acted as Governor of Mauritius in 1914, 1916, and 1919, after having served in Southern Nigeria as Assistant District Commissioner (1901), Assistant Secretary (1902), Senior Assistant Secretary (1904), District Commissioner, second grade (1906), Senior Assistant Colonial Secretary (1907); and, in Mauritius, first as Assistant Colonial Secretary and then as Colonial Secretary.

[4] Dr. Stirling was consecrated first Bishop of the Falkland Islands. His diocese included some seven 'consular' churches scattered throughout Brazil, Argentine, &c.; the colonial chaplaincy of the Falkland Islands; and the Missions of the South American Missionary Society in Tierra del Fuego.

[5] Consecrated first Bishop of Argentina in 1910.

COLONIAL CHAPLAINS

1845–1853. James Leith Moody.
1854–1859. Henry Martyn Faulkner.
1859–1877. Charles Bull.
1877–1907. Lowther E. Brandon.
1907–1909. Cyril H. Golding-Bird.
1909.[1] E. J. Seymour.

[1] The office of colonial chaplain was abolished in 1909.

PART II
INDUSTRIES

XI

Cattle and Sheep — Sheep-farming — A Note on the Falkland Islands' Fox.

When Bougainville first settled his colonists on East Falkland he left with them, on his return to France, the first cattle, sheep, and horses that existed on the islands. To be precise the Acadians' flocks and herds consisted in 1764 of seven heifers and two young bulls; eight sows, two boars; a few sheep; a kid; two horses and one mare. The stock, not only of cattle but of sheep, was added to from Montevideo [1] by the Spaniards during their occupation of the island, and, in 1785, according to Ramón Clairac,[2] the Spanish Governor of East Falkland, the flocks of all kinds numbered 7,774 head. A few sheep were brought at times by the British, beginning with Macbride, to Port Egmont, though very few seem to have survived the journey.

The tussock-grass and freedom from man made the cattle thrive; they increased not only in number but in size, and became the finest cattle in the world. When the islands were derelict—indeed, right on into 1840—whaling and sealing ships came to the islands provided with barrels of salt; and the crews killed the cattle not for present use only, but salted down enough meat for the rest of the voyage and beyond. Yet in spite of cruel and useless destruction it is only necessary to turn to Vernet's accounts and the claim he presented to the British Government [3] to realize

[1] As early as 1569 4,000 merinos had been exported from Spain to the Rio de la Plata.

[2] Clairac's report is in Add. MS. 13,974, ff. 367–72.

[3] As has already been noted under the year 1838 Vernet claimed £3,300 from the sale of beef at 2*d.* a lb.; the product of 800 oxen, the hides of which were worth 30*s.* each.

the wealth that the islands possessed in the wild cattle.

When, some seventy years after Bougainville left the islands, Mackinnon was in East Falkland, he gave the number of cattle in 1838 as 30,000 head, of which one-third were bulls. He describes them as magnificent animals. On the north side of East Falkland ' as far as Port Pleasant the cattle are generally of a dark colour, some bulls being of the most jetty black, with long shaggy hair about the head and neck; to the southward they get lighter and lighter until, at the extreme south, at times, you meet with whole herds of a beautiful white colour '.

Mackinnon relates how, armed with a large-bore rifle, a hunting-knife, his dog La Porte, and a man carrying a double-barrelled gun, he set forth one morning to meet a wild bull.

' I was lounging quietly along, my rifle slung on my shoulder,' he writes,[1] ' when a grunt from La Porte roused me, and with mixed feelings of fright and delight I beheld about 100 yards ahead of me an enormous bull majestically uprising; for a few seconds he remained still, writhing his tail, and then, as if having made up his mind, with a deafening roar came right at me. . . . La Porte met the bull half way, and with a shout of defiance, flew at his nose; he was too cunning, however, to be thus caught, for catching poor La Porte with his horns he sent him several feet up in the air. This sight so alarmed my man that, stepping back, he knocked my rifle barrel up . . . dropped my double gun and ran away. To curse him deeply and change guns was done instantly, when to my horror I found that in his fright he had not taken off the handkerchief I had tied on before. In despair I tugged and tore at it, and the last turn was just off—but I saw it was too late—he was within five yards, and at a horse's speed. Summoning all my energies, as his huge horns were within four feet of my body I sprang on one side. He was going too fast to turn; his right horn grazed my breast . . . with a dis-

[1] Mackinnon (L. B.), *Some account of the Falkland Islands . . . in 1838 and 1839*, London, 1840, pp. 34–7.

appointed bellow he made at my recreant man, who, stupified with fright, had fallen on his knees about fifteen yards on.

The brute had lowered his horns and was in the act of tossing him—at that moment I brought my right barrel to bear; the ounce of lead acted well, it passed through the centre of his heart. His powers were paralysed as if by magic; the impetus of his speed rolled him over and over . . . until his huge carcase rested on the brink of the lake, perfectly dead. In truth he was an enormous beast; he weighed 14 cwt.'

Mackinnon, like other writers, condemns the revolting cruelties practised by the gauchos during a cattle hunt, before the animals were killed.

'The present way of securing an addition of cattle', he writes,[1] 'is by sending the gauchos over Wickham Heights[2] to the neighbourhood of Mount, Pleasant, catching the wild ones there and driving them back the same way; this is only accomplished by a fearful waste of life, both in horses and cattle, numbers of both dying by the way; neither is this to be wondered at as these hills are from 800 to 1,200 feet high, and principally bog.'

Mackinnon under-estimated the height; Mount Usborne, near the western extremity, is 2,245 feet above sea-level.

The waste was not only in life but in material. Mackinnon speaks of 'upwards of 800 of as fine hides as can be produced anywhere, lying rotting in a damp store', at Port Louis. These were no doubt the hides belonging to Vernet, for which he afterwards in vain sought compensation.

It does not say much for humanity that the cruel practice of leaving the animals to linger for a day or more after being cut down, continued in force throughout the islands until 1877. After that year, greatly

[1] *Ut supra*, p. 47.

[2] Named after Lieutenant J. C. Wickham, of the Schooner *Adventure* who, under Captain Fitzroy of the *Beagle*, surveyed the islands in 1834.

owing to the efforts of Governor Callaghan, the animals were killed immediately after being lassoed and 'cut down'.[1]

The wild cattle were regarded as crown property, and a government farm was established for the supply of fresh beef to the settlement and shipping; which farm was let to G. T. Whitington in 1849. The gauchos were paid by the government until 1847 when Lafone's staff arrived. His great purchase of land in 1846 and his rights over all the cattle and sheep on East Falkland (there was no settlement then on West Falkland) has already been referred to.

In a short time he established a large *saladero* or slaughtering and salting house called Hope Place, to the south-east of Brenton Loch, under a resident manager. Also about a mile to the westward of Hope Place a promontory was walled off as a cattle enclosure, and three houses were built. He had cattle corrals at the foot of Mount Usborne and near Mount Pleasant, in Port Salvador, also at Port San Carlos; there were also two on Cape Dolphin, and two more at different spots on the main road from Hope Place to Stanley Harbour. He had, each year, to deliver a certain number (the original number agreed to was very large and was, later, modified) of tamed cattle, horses, pigs, and sheep to the Governor, the sheep to be in good health, all white ewes, not merinos.

It has been already stated that the wild cattle were regarded as crown property—an assumption which greatly irritated those colonists who were living on the islands before 1842. By Governor Mackenzie's Proclamation[2] respecting wild cattle, 5 April, 1861,

[1] Cutting a sinew or tendon behind the fore-shoulder to render the animal helpless.

[2] The statistics on which this chapter is based are taken for the most part from the Annual Colonial Reports (Blue Books), except where otherwise stated.

any person holding a lease of a station under the Proclamation of 4 April, 1861, and any person holding a grazing district under the Proclamation of 31 July, 1849, might capture and kill wild cattle under the following conditions. For every ox, bull, or cow captured, 14*s*., and for each calf running with the cow, 1*s*. When the number of wild bulls became excessive the Governor could grant permission to landholders to kill the same on the payment of 4*s*. apiece. Every licencee was bound to make a declaration every six months concerning the number of animals captured or killed by him within that time. On sufficient ground being shown any person might obtain a licence to kill on Crown Lands such wild cattle as he might require for consumption only, on payment of £1 for each animal.

A glance at the statistical table on page 386 will show roughly (the figures for the earlier years must be regarded as approximate only) the remarkable way in which the wild cattle increased, and the manner in which the sheep gradually outnumbered the cattle. The first to try sheep-farming were the brothers Whitington, when between 1835 and 1840 on East Falkland they successfully crossed Leicester rams with ewes from Montevideo. It is curious, and a point dwelt on with some fullness by Professor Clapham,[1] the way in which the two classes of sheep—the fine-wooled merino of Spain (descended from the Phœnician sheep introduced by the Moors) and the English long-wooled Leicester, Lincoln, and other kindred breeds, have mingled together and built up nearly all the most important flocks of the earth.

Lieutenant W. Langdon, R.N., a successful sheep farmer from Tasmania, declared that East Falkland would maintain between 250,000 and 300,000 sheep,

[1] Clapham (J. H.), *The Woollen and Worsted Industries*. Methuen, 1907.

and advised the introduction of the Peruvian breed, the wool of which was then in increasing request. Between 1854 and 1858 the number of sheep on East Falkland more than doubled; Cheviots—the most valuable of all mountain breeds—were introduced, also the fine, short-wooled Southdowns, the latter numbering 600, and doing well. English imported sheep cost £5 each; while ewes at Montevideo could be bought for 2*s.* 6*d.* a head.

In 1867 sheep-farming began to make headway on West Falkland, two pioneer farmers being Messrs. Edward Packe[1] and J. L. Waldron. The climate of the western islands was then considered more suited to the stock; the winds were not so cold, the camp was firmer, while rivers and mountains replaced the streams and hills of the eastern island. For the first years sheep-farmers on West Falkland had a hard struggle for existence. All the land was taken up, but by 1870 many of the smaller farmers were on the verge of bankruptcy. The Proclamation under which the West Falkland settlers first took up land limited the term of the stocking licence to twelve months. This would have been long enough if the sheep could have been obtained from East Falkland. But the only large flock-masters there were the Falkland Islands Company, and they refused to sell, although offered as much as 40*s.* a head.

Many of the West Falkland settlers were then newly arrived from England. They had to build houses and erect dipping-plant before the winter—and building materials in the islands cost at least four times as much as in England—and were forced to get their stock from Rio de la Plata. As they began farming with unacclimatized stock—brought 1,000 miles from a warm to a cold climate—their losses

[1] His brother, Captain R. C. Packe, one of the first to take up sheep-farming, owned about 105,000 acres in East Falkland.

were very great; in two cases out of 3,000 sheep landed only 1,000 survived the winter. They applied to the government for an extension of the time in which they were bound to stock, but it was not granted until the following year. Then, at Governor D'Arcy's request, the rent was lowered and compulsory purchase terms made more easy, this boon being accompanied by a gift of wild cattle. These last were tamed and kept in herds easy for a *rodeo*.[1]

In 1870–1 the number of sheep in the settlement had increased to 64,785, of which between 40,000 and 50,000 belonged to the Falkland Islands Company, the manager of which was then Mr. F. E. Cobb. To make more room for the sheep, cattle were shipped to Punta Arenas, where since 1843 Chile had maintained a colony. At first the trade was successful; then the passage thither became unduly lengthened by fierce westerly gales, the cattle died, and about 1871 the undertaking was given up. It was followed, however, by the exportation of sheep. H. L. Reynard, an Englishman living at Punta Arenas, rented Elizabeth Island and stocked it with sheep from the Falklands. His stock increased so rapidly that some of the sheep had to be removed to the mainland.

By 1874 the occupation of the settlement was officially returned as sheep-farming. From that time onward the wild cattle (which with the tamed ones had in 1851 numbered nearly 65,000) were killed off and gradually became extinct. Probably the last herd was the small one, numbering about twenty head, seen by Dr. Skottsberg in 1907.[2] The greatest enemy the sheep-farmers had to contend with was the dreaded scab (*Psoroptes communis*).[3] The weapons used against

[1] Inclosing cattle for the purpose of counting and marking them.

[2] Skottsberg (Carl), *The Wilds of Patagonia: a narrative of the Swedish Expedition . . . in 1907–1909–1911*, p. 12.

[3] For the history of scab among the River Plate sheep see Gibson

the scourge were a greater number of dip-yards with a strong tobacco dip (introduced by Mr. Wickham Bertrand, a farmer from New Zealand) and the employment of skilled shepherds Greater attention was also paid to the improvement of the breed. The result of crossing the English (Leicester) stock with *mestizo* [1] was to increase the value of wool from 9*d.* to 1*s.* or even 1*s.* 6*d.* per lb. As yet in the London market the wool of the Falkland Islands was included under the heading *River Plate wool.*

The most important station on West Falkland in the 'seventies was Port Stephens. From Port Stephens and Pebble Island (Messrs. Dean's stations) the clip taken on board the *Orissa* in 1873 amounted to the value of £5,000. In 1876 the ravages of scab were very severe, and some of the farmers were anxious that a government stock inspector should be appointed and dipping made compulsory. There were indeed not enough shepherds to keep pace with the stock; moreover the tobacco dip was very expensive,[2] although the tobacco for sheep dipping entered the islands duty-free. An attempt was made to introduce the glycerine dip used by flock-masters in Buenos Aires. At the San Carlos station, East Falkland, a dip made with lime and sulphur was tried with success. The limited supply of labour was also responsible for the lack of all agriculture. Except on Keppel Island, several acres of which were under cultivation, but few attempts were made to grow even turnips and other roots which flourished well and would have been invaluable as winter-food for stock. Governor Callaghan, who comments on this in his report for 1877, thought

(Herbert), *History and Present State of the Sheep-breeding Industry in the Argentine Republic.* Buenos Aires, 1893, ch. v.

[1] A cross between a newly-imported merino and a native Argentine 'criollo'.

[2] Though costly and not easily manipulated the leaf tobacco dip gives a soft character to the fleece and encourages its growth.

a clause should have been made in the lease making compulsory a small proportion of tillage.

Another burden, added to scab, bad weather, and inadequate labour, which crippled the sheep-farmers—especially those of West Falkland—was the lack of transport. In those days the West Falkland settlers had to hire a local steamer to take their produce to Stanley, and from Stanley to pay heavy freightage for the conveyance of their goods to England. It was not until 1877 that a leading farmer of West Falkland chartered a vessel in England which brought out his stores direct and took home his wool and hides without calling at Stanley.

Governor Callaghan suggested the establishment of a boiling-down and meat-preserving factory to utilize material which would otherwise be wasted. The severe winter of 1878 told heavily on the sheep-farmers, who were further depressed by the intimation that their wool, shipped the previous year, was found almost unmarketable owing to its coarse staple. The importation into the islands of merino rams was recommended. These would have to be imported at great expense from the River Plate. The years 1879–80 saw a rapid increase in the number of sheep. All the available crown lands were taken up, chiefly on grazing leases of twenty-one years. These lands amounted nominally to 1,561,074 acres, but were probably of greater extent as the stations had never been surveyed but were portioned out in allotments from the chart of the latest nautical survey. The largest flock-masters were still the Falkland Islands Company, and their tenants on Lively, Speedwell, and Bleaker Islands. In 1880 they boiled down 15,891 carcasses for tallow.

In 1883 the weather throughout the year was favourable. Governor Callaghan visited most of the outlying stations in H.M.S. *Amethyst* when shearing was going on, and reported an abundant clip. The

question of exporting frozen carcasses instead of converting the surplus stock into tallow was raised, with the suggestion of forming a company for establishing a freezing depot.

Reference has been made to the export of sheep to Punta Arenas. In 1883 some 6,000—chiefly from West Falkland—were exported thither, some of the West Falkland farmers obtaining concessions of land both from the Chilean and Argentine governments.

About 1880 the principal sheep-farmers and runs in the islands seem to have been, roughly, as follows :

East Falklands [1]

The Falkland Islands Company's sheep farm extended along the shore of Choiseul Sound by Mount Pleasant and Port Fitzroy to within fifteen miles of Stanley, and numbered 100,000 sheep mostly of Cheviot breed crossed with Argentine merinos. The Company had also several thousand horned cattle, of which only about a fourth were tame.

Captain Packe	90,000 acres.[2]
John Bonner	61,000 „
Andres Pittaluga	98,000 „
R. Greenshields	42,000 „
Messrs. Felton, Bros.	32,000 „
Messrs. Sharp and Robson	24,000 „
Messrs. Cobb	Lively Island.
C. H. Williams	Speedwell Island.

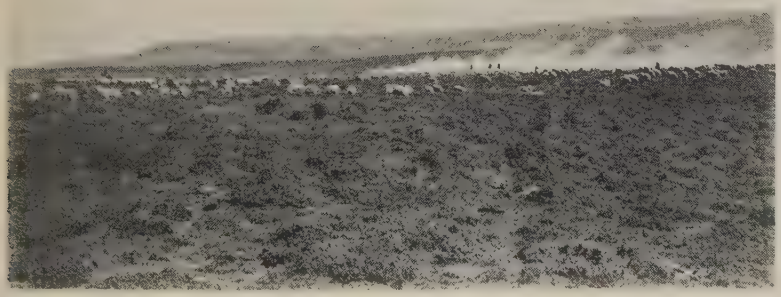
West Falklands

Messrs. Bertrand and Holmsted	171,000 acres.
Messrs. Baillon and Stickney	149,000 „
C. H. Williams	125,000 „
Messrs. Packe, Bros.	118,000 „
J. L. Waldron	104,000 „
J. McClymont	100,000 „
S. M. Dean	90,000 „
W. D. Binney	21,000 „

[1] Mulhall (M. G. and E. T.), *Handbook of the River Plate*. Buenos Aires, 1885, pp. 164–5.

[2] These figures must be regarded as approximate only.

SHEEP-GATHERING



SHEPHERDS MUSTERING SHEEP

with camp-fire behind. Camp-burning takes the place of heather-burning in Scotland. The progress of the camp-burners is marked by columns of smoke and flame as the grass catches fire

Messrs. Dean & Son also owned Pebble Island, Messrs. Bertrand and Holmsted, New Island; Keppel Island still belonged to the South American Missionary Society. Sheep constituted the principal and almost exclusive industry on East Falkland, cattle being found only on the farms of Messrs. Packe, Bonner, and Pittaluga, beside those belonging to the Falkland Islands Company.

In 1886 the Falkland Islands appeared for the first time under their own name in the Board of Trade returns, instead of being ignominiously included with *Other countries*. The same year an attempt was made to ship frozen mutton to England. This was partly the result of a gradual fall, since 1882, of the price both of tallow and sheepskins. In 1886 the *Selembria* was chartered to convey a cargo of 30,000 carcasses, weighing nearly 18,000 cwt. This was followed by more than one shipment the following year, bringing a total supply of 41,000 carcasses. The mutton brought over in the first cargo of 1887 fetched only 3*d*. to 4½*d*. per lb.; a result which was far from encouraging, though the failure was owing in part to the farmers themselves for having allowed the sheep to be overdriven before slaughter. The *Journal of the Royal Agricultural Society*[1] comments on the fact of 'a little colony with a population of 1,800 raising their sheep stock from 10,000 to 500,000 in twenty-five years' time; and sending in 1886 in one cargo more than three times as much mutton as New South Wales with her older frozen meat trade and her 40,000,000 sheep supplied in that year'. In spite of the failure of the experiment an attempt to revive the industry was made in 1889 and 1890.

The next experiment to be made was that of attempting to carry live sheep to London. On the 26th March, 1889, the steamer *Schleswig* shipped 2,278 sheep from

[1] Second Series, 1889, xxv. 209.

Mr. Felton's station at San Salvador (East Falkland) and, after stopping to coal at St. Vincent, arrived at Deptford April 27th. Unfortunately the necessary sanitary certificate had not been procured at the Falkland Islands, so the vessel was not allowed to take the sheep to London. They were killed at Deptford; 236 died on the voyage, while the survivors lost weight on an average of 14 lb. each. The experiment has not been repeated.

The clips of wool for both 1889 and 1890 were heavy, that of 1889 realizing from 6*d.* to 9*d.* per lb. More sheep, the introduction of machinery, more careful shepherding and breeding led to an increase both in the quantity and quality of the wool. By 1893 the number of acres leased was 3,414,166; while the freeholds amounted to 758,103 acres. Many of the leases for twenty-one years (under the ordinance of 1871) having elapsed, allotments of land varying from 7,000–12,000 acres were in 1893 put up for sale.

In 1894 there was an increased mortality among the sheep during the shearing season through the use of a steam clipper, which was found to crop so closely as to endanger the life of the sheep, and also retarded the growth of the wool for the ensuing year. Shearing machines are not in much favour, and now shearing is done entirely by hand. At the present time the men engaged in shearing are skilled workmen and get through their work quickly and thoroughly. A good shearer can now clip over 150 sheep a day.[1]

A forward step in sheep-farming was made in 1895 when an Ordinance was passed to facilitate the eradica-

[1] From the Colonial Report 1914–15. Compare with this Gibson's remark on the Argentine shearer, p. 75 of work already quoted: 'An average man will clip from 40 to 50 sheep per diem. I have known an exceptionally dexterous man to shear 108 Lincoln cross sheep in one day and deliver them all to the overseer neatly and properly shorn.'

tion of scab. Under it were appointed a stock inspector and his staff. They consisted of a Chief Inspector (the first being John T. Mowat) and two sub-inspectors, all from New Zealand. They visited and reported upon all (except three small islands) the sheep stations in the colony. They described the flocks generally as being a mixed cross-breed, with the appearance of having come originally from merino stock; only in the case of a few stud rams was any purity found. They advised the importation of more pure blood and the establishment of some better foundation in the flocks. On the whole they found the health of the flocks good; there was no foot-rot; with the exception of a few cases of scrofula and tetanus the only enemy was scab, and that was disappearing now that the farmers paid stricter attention to gathering and dipping. With regard to the latter process they complained that in many cases the dipping bath was too short and the sheep were plunged in and out without being allowed to remain in the mixture for a sufficient time. They also recommended the registration of ear marks.

The lambing for that year showed an average of 65 per cent. During the year twenty-seven Lincoln and five Cheviot rams were imported from England. The Lincoln is the most popular of the long-wools and stamps his type upon the stock very readily. The Lincoln cross supplies a good fleece and also the sweet-flavoured mutton of the merino breeds; moreover the long-wool, although requiring more space than the merino, shows a greater resistance to the parasite of the lung-worm (*Strongulus filaria*), or *lombriz* as the Spaniards call it.

No frozen mutton was exported in 1896, but it was hoped to develop that industry and also to venture again on the shipment abroad of live sheep. Boiling down for tallow was carried on at about six stations,

three of which possessed most complete plants for the purpose. The formation of a Stock Department had a good effect on sheep-farming, the inspectors suggesting new methods and carrying fresh ideas from one farm to another. A large number of stud rams were imported—principally from New Zealand. Of the total of 241 there were 127 Romney Marsh, a breed which should become a favourite with its healthy frame and soft wool. Hitherto the wonderful grasses of the islands had been supplemented by the importation of *alfalfa* [1] (or *alfafa*) from Buenos Aires, but in 1896 two farmers on two of the smaller islands were sufficiently enterprising to obtain a small quantity of cock's-foot grass seed [2] from New Zealand. A rough estimate of the percentage of fat and food formers in the various fodders may be given here : [3]

Maize	79·00
Beets	17·50
Clover	13·00
Cabbage	6·00
Italian rye grass	17·50
Cock's-foot	18·50
Lucerne	19·00

The Inspector of Stock [4] visited London that year to find out if any satisfactory arrangements could be

[1] Lucerne. It was first introduced into Argentina about 1849; it yields many crops in the year, given proper soil.

[2] Cock's-foot (*Dactylis glomerata*) is one of the grasses suited to a soil deficient in lime—as is the soil of the Falkland Islands. A note on cultivation will be found below, p. 278–9.

[3] For an interesting series of grass analyses see Sutton (M. J.), *Permanent and Temporary Pastures*. Appendix by J. A. Voelcker. 1888.

[4] A tax of one-twelfth of a penny per acre levied on land outside the town, and used for pastoral purposes only, was paid by the farmers. It produced £800 a year and was used to provide the Stock Inspector and his staff and meet any other expenditure incurred in eradicating scab, &c. An export tax on wool, sheepskins, &c., was first imposed in 1899. Since 1919 the expenses of inspection have become a charge on the general revenue of the colony.

made for the sale of Falkland Islands frozen mutton in London. To make frozen mutton pay it is necessary to breed the sheep up to a certain standard; it is not enough for them to be large and heavy, and it was evident that some time must elapse before the Falkland Islands sheep reached a sufficiently high standard.

The same year 3,360 live sheep, value £1,008, were exported to Chile.

The price of wool declined for the next few years but began to rise again in 1902. The stock imported that year included six Shropshires from England. The Shropshire, like other black-faced sheep, is best adapted for arable land and a dry climate, as it suffers from foot-rot; it produces a poor fleece but mutton of a very fine quality.

It may be interesting here to note the price of stock and produce as compared with those given for 1846, and some of the wages paid.

	1846.	1902.
Cattle	£2 each	£1 to £5, average £2
Horses (imported)	£18 each	£5 to £20, average £14.
Horses (island bred)	£5 each	Not given.
Sheep	Not given	4*s.* to 7*s.*, average 5*s.*
Swine	10*s.* to £2 each	Not given.
Goats	15*s.* each	Not given.
Beef	2*d.* a lb.	5*d.* a lb.
Mutton	5*d.* a lb.	2*d.* a lb.
Milk (skimmed)	3*d.* a quart	8*d.* to 1*s.* a quart.
Butter (fresh and salt)	1*s.* 6*d.* a lb.	2*s.* 3*d.* to 2*s.* 6*d.* a lb.

In 1846 a labourer's wage averaged from 3*s.* to 5*s.* 5*d.* a day; a skilled workman earned from 6*s.* 6*d.* to 8*s.* 8*d.* a day.

In 1902 a labourer's wage was 8*d.* an hour, and 1*s.* an hour overtime; while a shipwright earned 16*s.* 4*d.* a day for ship work. A shepherd earned £60 to £70 a year, with free lodgings—horses, usually seven—and mutton. In 1863 wool was from 10½*d.* to 11*d.* a lb. In 1902 the price is given as from 4*d.* to 6*d.* a lb.

The price rose the following year, but the clip, owing to the previous severe winter, was not good; it was tender, with a break in it. But the farmers were doing their best to improve the flocks, and that year 515 sheep were imported from New Zealand. Unfortunately a few of these were found to be suffering from foot-rot, contracted on the voyage; but all reached their destination safely. There was but little scab; and lice which had been very prevalent the preceding year were in 1903 almost exterminated. Further experiments were tried with grass sowing; clover being sown as well as cock's-foot at Darwin, Lively Island, Fitzroy, Stanley, and quarantine paddock.

To sheep-farmers the islands existed solely for the maintenance of sheep. Anything that they regarded —rightly or wrongly—as detrimental to the stock was to be destroyed. Hence in 1903 came the agitation to induce the government to undertake a campaign against the wild (or, as Governor Grey-Wilson described them, 'in reality much too tame') geese. They declared that about 150,000 geese—representing grass for 20,000 sheep—should be destroyed every year, ignoring the facts that the 'scourge' to be destroyed represented about three-quarters of a million lb. of food; and that interference with the bird-life so closely and mysteriously interwoven with all other life is apt ultimately to have an effect both far-reaching and disastrous. However, an Ordinance for the diminution of geese was passed, the number of beaks to be purchased during the first year being for the East Falklands 50,000; for the West Falklands 37,500.

The lambing in 1904 was good and there was a marked improvement in the flocks. The wool clip was heavier and the prices realized in the London markets much better than had been experienced for some time. But towards 1906–7 prices declined

again, the result of the March sales in 1908 showing a further downward tendency. Against that depression, however, was set the fact that, owing to improved prices in wheat, sheep-rearing areas in Australia, New Zealand, South Africa, and Argentina were being converted into agricultural lands, a change that it was hoped would react beneficially on the staple industry of the Falklands. The clip for 1908–9 was heavier, cleaner, and in better condition than usual, but the wool market was falling and prices were very low.

The rams imported were healthy, with the exception of a few cases of foot-rot; the quarantine shed had been renovated to enable imported sheep to be kept for a time under supervision. In one run there was an outbreak of a disease resembling malignant œdema, probably caused by the use of an arsenical dip; the use of a tobacco dip was therefore recommended.

In 1909 prices rose; the clip was up to the usual standard, averaging about 8¾ lb. to the fleece. The continued prohibition, owing to disease, of the importation of cattle, sheep, and alfalfa from South America led to the farmers in 1909–10 paying more attention to grass sowing.

The stock fund at the end of 1910 was £1,863, as against £1,852 in 1909. The receipts in respect of the land tax levied during the year under the Live Stock Ordinance amounted to £807, while the expenditure was £795; the sum of £379 17*s.* 8*d.* being paid for the destruction of geese. Two meat-canning factories were in 1910 erected on East Falkland, the plant was imported and it was hoped to begin operations the following year. An experiment made three years previously by a Hamburg firm to export frozen mutton had failed. The canning enterprise, however, proved successful, and by 1912 had found a good market in Great Britain, the buyers' report being

favourable. In 1915 over 36,000 sheep were canned, as against 17,000 during 1914. Between 1914–16 the prices given for sheep for canning were as follows :

For sheep over 45 lb. in weight (dead weight) $2\frac{1}{4}d.$ per lb.
For sheep between 45–40 lb. . . . $1\frac{1}{2}d.$ per lb.
For sheep under 40 lb. . . . . 3*s.* 6*d.* per head.

In 1916 over 37,000 sheep were canned, principally at the factory belonging to the Falkland Islands Company at Goose Green. Their premises covered nearly two acres, their products gaining high prices in the English market.

The season 1910–11 was a prosperous one for stock owners ; wool, hides, tallow, and sheepskins all obtaining a good price. In the winter and spring of 1911 more rain fell than for many years past, and grass, which was backward that year, improved.

The health of the sheep was, on the whole, satisfactory ; there were a few cases of lice on East Falkland ; but ticks were less numerous, especially on those stations where the sheep were dipped twice. There were a few cases of scrofula and it was recommended that all sheep so affected should be killed, as, though not infectious, the tendency towards it was probably inherited. The quality of the young stock was reported as greatly improved, some of the hoggets to be seen being a credit to the colony. It had become the practice to dip all imported sheep before releasing them from quarantine.

It was a regrettable fact that in 1911 some of the milking-cows were found to be tuberculous. The government offered to test milk free of charge. The percentage of affected animals was not high, so that it rested with the stock owners either to stamp out the disease or let it spread. Good hay was cut that year and, for the first time, sold in Stanley.

In his report on the health of the colony for 1912

the colonial surgeon once again drew attention to the obvious fact that, apart from the question of humanity, no animals intended for food should be overdriven before being killed.

The year 1912 was prosperous; more wool was produced than in 1911, prices were high. Careful attention to the selection of rams, and deeper culling, with more care spent on ditching, draining, and shepherding made the flocks present a very good appearance and gave a clip well over 8 lb. per fleece. Of course there were still farmers content to breed year after year from old sheep carrying neither flesh nor wool, the result being a light clip and high death rate.

Owing to foot-and-mouth disease the importation of stock from Great Britain was forbidden, as it was also from South America.

On the outbreak of war a few men left for England to enlist; but the smallness of the population and the necessity for the retention of those engaged in the wool industry—for the exportation of large quantities of wool and whale oil to the United Kingdom was then of supreme importance—made the number relatively small. The exportation to foreign countries of all live stock was prohibited. In 1914 the record price of 1*s.* 5*d.* per lb. for wool was reached; but this again was beaten in 1915 when two stations obtained 1*s.* 7*d.* a lb. in the London markets. In 1915 there was an increase in export duties on the following:

On sheep . .	½*d.*–3*d.* each.
„ sheepskins .	½*d.*–1*d.* each.
„ wool . .	1½*d.* per 10 lb.
„ hides . .	3*d.*–6*d.* each.
„ canned meats .	6*d.* per case of 72 lb.

In 1916 wool rose yet higher—to 1*s.* 10½*d.* per lb. as compared with 1*s.* 7*d.* of the previous year. In the

same year the interesting experiment was made of turning a crop of oaten hay into ensilage. It was the first attempt made to store green fodder, and the result was entirely successful. So far out of an acreage of about 4,160,000 only about 160 acres were under cultivation. It was hoped, after this success, to put more land under the plough, especially on the West Falklands.

The winter of 1918 was very severe; heavy frosts succeeded by continuous snows and rains resulted in a general loss of stock, particularly in lambs. After the war the price of wool began to fall until, in 1921, it was from 8½*d.* to 1*s.* per lb. Then followed a steady upward movement and, the following year the comparatively high price of 1*s.* to 1*s.* 5*d.* per lb. was reached, and the market showed signs of further improvement.

The latest importations from Argentina and Tierra del Fuego include rams and ewes of the Corriedale cross. All the wool is sent home in the grease; it is packed on the stations in bales of from 5 cwt. to 6 cwt., which are sent by sea to Port Stanley and from thence to London. Shearing begins in December but, owing to difficulties of communication, the wool does not reach the London market in time for the March sales.

With the exception of about 80,000 acres, almost all the land is given up to sheep-farming. The acreage per sheep now averages 4·05 in East Falkland, and 5·38 in West Falkland, while the smaller islands carry on an average one sheep to three acres. The latest statistics available relative to the number of sheep now in the colony are from the Report of 1922, and are as follows:

Number of sheep . .	666,175
Number of breeding ewes .	250,529
Number of hoggets . . .	134,324

The total number of males resident on the sheep farms according to the census of 1921 was 465, of whom twenty-one are described as farmers. The question of sheep-farming in the Falklands has lately been studied from every point of view, and the results of this examination will shortly be available.

Falkland Islands Fox

One of the animals most disliked by the first sheep-farmers was that interesting—but unfortunately extinct—mammal the fox, or wolf, or dog of the Falkland Islands.

Simson who, it may be remembered, sailed with Strong in the *Welfare* in 1689–90 was the first to describe the only quadruped of the islands, though his account, never having been printed, has been ignored even by Darwin. The *Welfare* people saw, he said,[1] 'foxes twice as big as in England, we caught a young one alive, which we kept a board some months, but upon the first engagement and Firing of the Guns he was frighted over board. . . . He was of a very antient wild and cunning family. . . . As to their antiquity since they cannot fly at all, nor likely swime so farr as from America . . . there has been either two distinct Creations, or y^t^ America and y^t^ Island have been formed from the same Continent, which is the more probable of the two by farr.'

Bougainville gave it the name of *loup-renard*. Byron, who found several in the West Falklands, and named a place Fox Bay, said they were as big as a middle-sized mastiff. His men were greatly alarmed at the sight of 'four creatures of great fierceness, resembling wolves', and set fire to the tussock to get rid of them, though the 'warrah', as it was called by the first colonists, seems to have been a timid animal, 'at

[1] Sloane MS. 86, f. 3.

times very meager from want of prey', says Pennant; not going about in packs, and easily attracted by a piece of meat and killed. Pennant describes[1] it as an Antarctic dog, 'the head and body cinereous brown'; and it is from his description that the term *canis antarcticus* was first given it by Bechstein[2] in 1799.

Three of these foxes, or wolves, or dogs, were brought back by the *Beagle*, two of them being presented to the Natural History Department of the British Museum by Sir W. Burnett and Captain Fitzroy. It was from one of these that was drawn the fine coloured plate included by Darwin in his *Mammalia*.[3] Darwin calls it *Canis Antarcticus*. He describes the fur as moderately long; the under fur of a pale brown colour; on the chest and belly the hairs are of a pale dirty yellow colour, grey-white at the base, and black at the apex. The contour of the head is wolf-like; the legs, however, are shorter than in the true wolves; and the tail is white at the apex, a character common in foxes.

'I was assured by Mr. Low, an intelligent sealer who has long frequented these islands,' says Darwin,[4] 'that the wolves of West Falkland are invariably smaller and of a redder colour than those from the Eastern island; and this account was corroborated by the officers of the *Adventure*, employed in surveying the archipelago.' Mr. Oldfield Thomas[5] has decided that there were two species of foxes or dogs: *Dusicyon*

[1] Pennant (Thos.), *The History of Quadrupeds*, 2 vols., 1781, i. 240.

[2] Bechstein (Joh. Matth.), *T. Pennant's allgemeine Uebersicht der vierfüssigen Thiere*, 1799, i. 271.

[3] Darwin (C. R.), *The Zoology of the Voyage of H.M.S.* Beagle. Mammalia, 1839, Plate iv.

[4] *Ut supra*, p. 10.

[5] Thomas (Oldfield), *On various South American Mammals.* (Published by permission of the Trustees of the British Museum.) *Annals and Magazines of Nat. Hist.*, Series viii, vol. xiii. 1914, pp. 352–5.

darwini, the extinct dog of East Falkland; and *Dusicyon antarcticus*, that of the western islands, *D. darwini* being larger and darker coloured than *D. antarcticus*. He gives some interesting details relating to the measurements of five skulls—two placed at his disposal by the Royal College of Surgeons—which seem to show the differences between the two species; though, as he frankly says, 'no certainty is possible.' Those five skulls are all the remains left to us of the wonderful '*loup-renard*'. The first colonists found it a nuisance; the early governors offered a reward for every head of 'warrah' brought in; by 1850 they were rapidly diminishing; now for some years they have been extinct.

According to their enemies the farmers these 'foxes' would round up a flock of sheep like a trained sheep-dog, and, should a sheep try to break away, the 'fox' would catch it by the throat. Dead sheep were found with teeth-marks at the side of the throat, which was not torn. Apparently the 'fox' sucked its victim's blood, falling back at times on its flesh.

But how, as Simson said, since foxes cannot fly, did the Falkland Islands fox first come on the islands? Arldt remarks on the absence from the Falklands of certain groups of animals. He says[1] that the Falklands have remained separated from the continent since the middle of the Mesozoic Age; but he also suggests that the distance between the continental mass and the islands diminished after the Miocene period; and he thus accounts for the presence of both fox and rat. Although both rat and mouse may well have arrived in a prosaic manner on board the first ships that touched at the islands.

Dr. Skottsberg, in his *Botanical Survey of the Falkland*

[1] Arldt (Theodor), *Die Entwicklung der Kontinente und ihrer Lebewelt, ein Beitrag zur vergleichenden Erdgeschichte*. Leipzig, 1907, p. 113.

Islands,[1] thinks that many animals disappeared during the solifluction, and that the pre-glacial forest was the home of many creatures not found in the islands to-day.

In spite of all the evil-doing ascribed to him it is matter for regret that neither *Dusicyon darwini* nor *Dusicyon antarcticus* will ever wander through the evening or burrow in the earth again.

He is said to have been destructive to rabbits; but though some of the islets are still marked on the Admiralty charts as 'abounding with rabbits', they are but rarely seen on the two larger islands, although the 'fox' has been dead these many years. Perhaps, after all, he was not so black as he has been painted.

[1] Kungl. Svenska Vet. Hand., Bd. 50, No. 3, 1913, p. 72.

XII

WHALES AND THE WHALING INDUSTRY

The first British whaling fleet—consisting of twelve vessels—for the South Seas sailed in 1725. In 1766 the first shipment of whale-oil was exported from the Falkland Islands when Bougainville's ship, the *Aigle*, after her third visit to the Malouines, returned to Saint Malo with a cargo which included whale-oil and sealskins. Ramón Clairac, Governor of the Islas Malvinas, in a report dated 26th November, 1792, forwarded to his chief at Buenos Aires a Table showing the profits accruing to the ships employed (against Spanish orders) in the British whale fishery between the years 1787 and 1790 at Port Egmont. According to this report the English vessels obtained 1,385 pipes of oil; a pipe of whale-oil being worth in England 80 'pesos fuertes'. Clairac strongly urged the formation of a permanent whaling station at Puerto de la Soledad, 'due regard being had to fostering a trade from which foreigners gain such signal advantages.'[1] That year Spain had formed a large whaling and sealing company with its head-quarters at Port Desire. The Spanish government granted various privileges to the Company[2], which in 1792 established a whaling station at the Malvinas.

Between 1807 and 1820 when the islands were derelict they were infested with whalers, the crews of which destroyed all birds and beasts and fishes without mercy. When Jewitt was sent to claim the islands

[1] Add. MS. 13974, f. 370.

[2] *Coleccion de documentos oficiales . . . sobre las islas Malvinas*, No. xxix.

on behalf of the Argentine Republic he found in Puerto de la Soledad more than fifty foreign vessels—nearly all whaling or sealing ships.

Altogether, in the first half of the nineteenth century as many as five or six hundred vessels were employed in hunting cachalot or sperm-whales, and the Southern Right whale in the South Atlantic and Antarctic Oceans. The whales of the Finner species were at that time left unmolested, for they sink at once after being killed and it was impossible to capture them with the method then in use. For at that time the whale was hunted from the ship's boats, and harpooned with a hand lance. Later on this was superseded by a bomb lance fired from a shoulder-gun. As may be imagined the contest was long and terrible to both hunter and hunted—especially to the former if the latter happened to be a sperm-whale, for its powerful tail can be used with terrible effectiveness and boats could be crushed between its mighty jaws. Moreover it is, apparently, the only whale which deliberately turns on its pursuers; other whales do it blindly, in their death 'flurry'.

It is not, strictly speaking, a southern whale, as it keeps as a rule to warmer seas, but it has been caught at South Georgia and even about the South Shetlands, and is eagerly sought after on account of the value of its products—sperm-oil and ambergris. The sperm-whale (*Physeter macrocephalus* or *P. catodon*) is the largest of the toothed whale family, its greatest length being seventy feet. It has a blunt head and a prominent 'hump' on the back. On each side of the lower jaw—which is much shorter than the upper—are eighteen to twenty-five massive teeth which fit into sockets in the upper jaw and assist in holding the whale's food—its favourite delicacy being cuttle-fish and the giant squid. The latter being sometimes twenty feet long and an unwilling victim the sperm-

whale bears many scars. Its great head (which occupies one-third of its body) contains a large cell full of oil. Refined sperm-oil is a most valuable lubricant for intricate and delicate machinery. Still more valuable is ambergris, *Ambre gris*—grey amber. The word brings to the mind strange drugs, unlawful philtres as of Paracelsus, wines and perfumes of the East. Yet it is but a prosaic, grey, evil-smelling substance from the intestines of the sperm-whale; a product, moreover, of disease. Hardened by exposure to the air the ambergris becomes pale and develops the peculiar sweet, earthy, lasting fragrance which makes it a 'fixative' in perfume-making. Nothing has ever been found so effective.

The Southern Right whale (*Balæna australis*), already referred to, is distinguished from other whalebone whales by its lack of dorsal fins and the remarkable size of its baleen, or whalebone. This baleen is not bone but a substance called 'keratin'. Two parallel rows of this horny substance hang from the roof of the mouth. Each plate is roughly triangular, the base of attachment being broader than the lower free extremity, and has the inner edges frayed out into hair-like fibre. These bristles act as a kind of sieve, letting the water through but keeping back the small shrimps and other minute organisms found in countless myriads in the Antarctic and sub-Antarctic seas, and which form the food of whalebone whales. Among this whale food are the red shrimps,[1] or 'small red lobsters' of early explorers, which Racovitza defines as 'des schizopodes du genre *Euphausia*',[2] and which form part of the food not of whales only but of seals and penguins.

The whalebone whales are not hunted for their

[1] The *Argonauta antarctica* of Borchgrewink.

[2] Racovitza (Émile G.), *Cétacés. Résultats du voyage du S. Y.* Belgica *en 1897–9*. Anvers, 1903, p. 100.

baleen but chiefly for their oil. Mention has been made of Vernet's attempt to develop the fisheries (including the whaling industry) of the Falkland Islands; but his efforts were negatived by the destruction wrought by the *Lexington* in 1831. During the following fifty years or so the whaling industry declined. Even the expedition of the Dundee Whalers, 1892–3, which came to search the Antarctic seas for the Bowhead, or some similar whale, was a failure as far as whaling was concerned; it is referred to in the next chapter.

The revival during the last thirty years of the whaling industry is due to a gun invented by Herr Svend Foyn, which has proved very deadly, and has made possible the capture of the Finner[1] whales. At present the whaling industry of the far south is concerned chiefly with three species of Finner whales—the Blue, Fin, and Sei whales—and with the Humpback.

The Blue whale (*Balænoptera musculus*), so called because its body has a blue tinge, is not only the largest animal alive to-day, but probably the largest that ever has lived. It has been recorded as reaching more than one hundred feet in length. The head is a little darker than the body, and unmarked, and its eye is just above the corner of the mouth. Monster as it is it yet has friendly eyes, and its colouring is delicate and subdued as the sea in a troubled dawn—steel-blue, and dark dim violet, fading, by gradations, into dove-colour, then to the faint pink then white of the underside, a white so pure that 'it makes the sea-foam look grey as it washes across it to and fro'.[2]

The Fin (fin-back, razor-back) whale (*B. physalus*)

[1] A dozen Finner whales were said to have been driven ashore at Long Island in 1843.

[2] Murdoch (W. G. Burn), *Modern Whaling and Bear-hunting*, 1917, p. 93.

AN EIGHTY-FIVE-FOOT BLUE WHALE
(*Balænoptera musculus*)

FIN WHALE LYING AT BUOY
(*Balænoptera physalus*)

has, from its large size and slender form, been termed 'the greyhound of the sea'.[1] Its average length is 62 feet. In colour it is dark grey above and white below; and while the left side of its throat is slate grey the right side is pure white.

The Sei whale (*B. borealis*) is smaller than either the blue or fin whales, its average length being between 42 and 43 feet. Its dorsal fin is large and truncated; it is of a roving disposition and wanders restlessly from coast to coast.

The Humpback (*Megaptera nodosa*) averages about 45 feet in length. It has a heavy, ungraceful form and a flat blunt head. In colour it is white, with black markings. It is of a playful disposition and may be seen to 'breach' in play—sometimes a whole school will throw their 45-feet bodies into the air. In the humpback, as in other large whales, a very great affection exists between mother and calf.

The demand for whale-oil is almost unlimited. In peace time it was used principally in soap-making, with glycerine as a by-product. The development of its use during the war was phenomenal, its use in the production of glycerine freeing other fats for edible purposes. Being a soft oil it has first to be hydrogenated before it can be used for soap; hardened it is also a substitute for tallow, and, carefully treated, is edible. It is classified into five grades—numbers 0, 1, 2, 3, and 4. Numbers 0 and 1 are made entirely from blubber and are of a pale yellow with but a faint fishy smell. Afterwards the mass in the boiling-pans, with the flesh of the whale, is 'tried down' under pressure, and number 2 is produced, of a darker colour and a higher proportion of fatty acids. Number 3 is produced from the flesh and bones,

[1] Andrews (R. C.), *Whale-hunting with gun and camera*. New York, D. Appleton, 1916. In this work much useful information will be found.

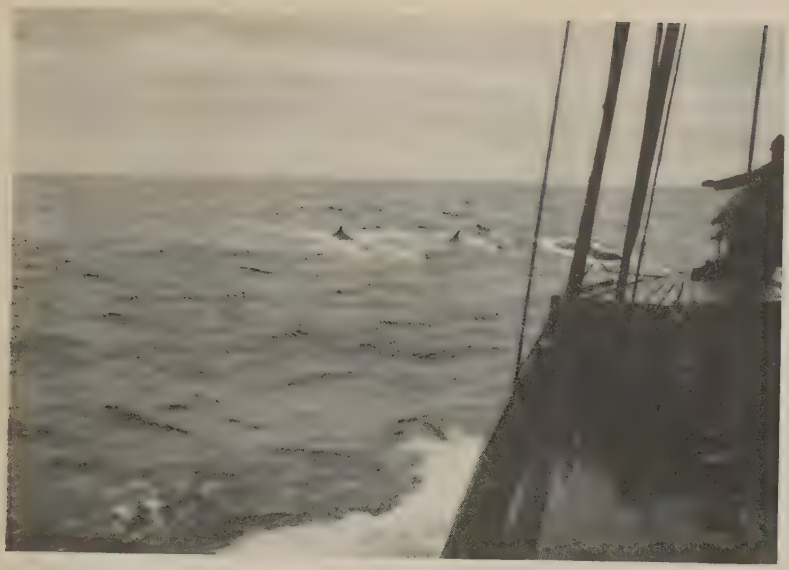
and is called bone oil; and number 4 from refuse; it is the darkest in colour and the most unpleasant as regards smell, and is used for making lubricating greases. Other whale products are whale-meat meal (a good cattle food), and whale guano, which contains about 8·50 per cent. of ammonia and about 21 per cent. tribasic phosphates.

Captain C. A. Larsen, of Sandefjord, Norway, has done much to develop whaling at the Dependencies of the Falkland Islands. He was in command of the *Jason* when he visited Port Stanley at the end of 1893.[1] In his search for whales he went to the South Shetlands and Orkneys and Graham Land—naming a hill in Graham Land after his vessel—and he noticed the number of Finner whales in the Antarctic seas. Ten years later he was again in the same regions, when, as master of the *Antarctic*, he accompanied Professor Nordenskjöld's Swedish expedition. A few years later he succeeded in raising sufficient money in Buenos Aires to found the *Compañia Argentina de Pesca* of Buenos Aires, with himself as manager. His first whaling factory was at South Georgia, in King Edward's Cove; his vessels being one modern steam whaler and two small sailing vessels.[2] The satisfactory results obtained led to the formation of other companies, which now carry on a large business in the Dependencies of the Falkland Islands.

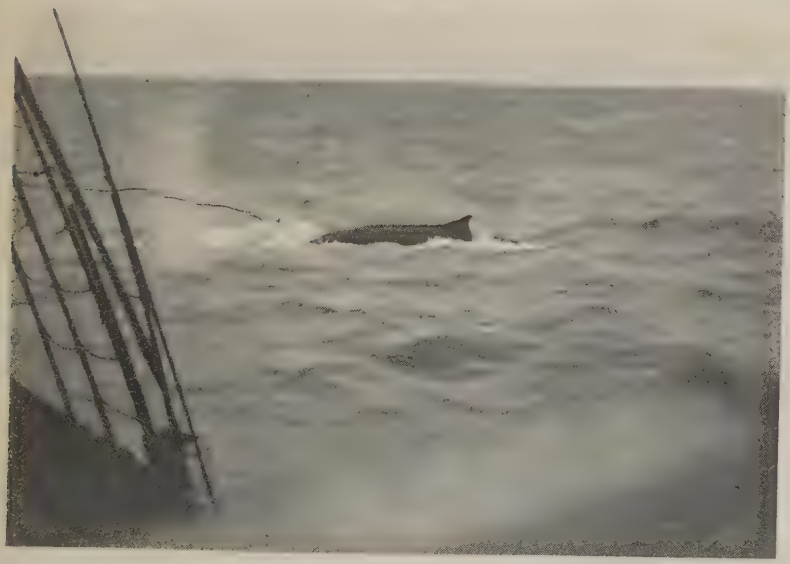
In 1906 Alexander Lange, manager of the whaling steamers *Admiralen Hauken*, *Ornen*, and *Vesterlide*, applied for and obtained a licence to take whales in the territorial waters of East and West Falkland and the South Shetlands. As a result of the prosperity of the whaling industry the following year the revenue

[1] Voyage of the *Jason* to the Antarctic Regions. (*Geographical Journal*, 1894, iv. 333.)

[2] He is now (1924) in command of the first modern whaling expedition to operate in the Ross Sea.



WHALE-HUNTING FROM A MODERN WHALE-CATCHER



SHOOTING THE WHALE

S.S. SOUTHERN QUEEN

Floating factory owned by the Southern Whaling and Sealing Company
The whale carcase is flensed alongside the vessel, which is
provided with open pressure boilers

MESSRS. CHR. SALVESEN'S WHALING FACTORY

(now removed to Leith Harbour, South Georgia)
at New Island, West Falklands

of the Falkland Islands and Dependencies benefited to the extent of £921. This was apart from the moneys received in respect of an agreement for the exploitation of South Georgia as a field for mining operations. The details of the increase of 1907 are as follows:

	£
Rent of South Georgia	500
Whaling Licences	225
Whaling Royalties	164
Harbour Dues, &c.	32
	921

In 1909 six whaling companies were operating in South Georgia, one from a floating factory and five from shore stations. At the South Shetlands there were three Norwegian companies and one Chilean. During the season 1910–11 ten companies operated at the South Shetlands. The first whaling factory erected at the Falkland Islands was that on New Island, by the British firm of Messrs. Salvesen & Company in 1908–9, which worked three whalers. These three whalers, operating at the Falkland Islands, brought in between November, 1912, and the end of April, 1913, 87 whales. This number was composed of 43 Fish whales, 36 Finner whales, and 8 Humpbacks, yielding 2,128 barrels of oil and 275 tons of guano.[1] The factory was the first erected in the colony, and was equipped with the most modern machinery for utilizing the whole carcass of the whale.

In 1912 the total population of the Falkland Islands and Dependencies numbered 3,275 (in 1881 the population was 1,553), 2,370 being males, of whom

[1] Salvesen (Theodore E.), *The Whale Fisheries of the Falkland Islands and Dependencies*, Edinburgh, 1914. (*Scottish National Antarctic Expedition*, xix.)

1,149 were employed in the whaling industry. Of these about 1,000 were Norwegians and Swedes. Ten years later the figures were very much the same.

The whaling season lasts from the 16th of September to the 31st of May. At the South Shetlands, where there is only one shore station, operations are conducted by floating factories and their attendant catchers, and the season depends upon the ice conditions. The estimated value of the industry was, in 1914, £1,301,547; by 1921–2 it had increased to £2,244,390.

The fishing season 1915–16 was exceptionally productive, but it was noticed that the Humpback whale (*Megaptera nodosa*) was decreasing in numbers; and it became evident that universal legislation was necessary to protect the whales from being unduly depleted. The British Government, with its control of the world's best fisheries, in 1917 appointed an Interdepartmental Committee, under the direction of the Colonial Office, to study the question of the development of the Dependencies of the Falkland Islands, with special reference to the preservation of the whaling industry.

The Committee published their valuable and admirable Report[1] in 1920; in it will be found full details of the whaling industry in South Georgia, the South Shetlands, Graham Land, the South Sandwich Islands, and the South Orkneys.

No whaling operations have been carried on at the Falklands themselves since March, 1916, when Messrs. Salvesen's station at New Island (West Falkland) was removed to South Georgia. A few statistics con-

[1] *Report of the Interdepartmental Committee on Research and Development in the Dependencies of the Falkland Islands.* H.M. Stationery Office, 1920.

cerning it from the Blue Book reports may be given here:

Season.	Approximate number caught.	Oil. Barrels.[1]	Oil. Value.	Whalebone. Tons.	Whalebone. Value.	Guano. Bags.	Guano. Value.	Total value.
			£		£		£	£
1912–13	200	6,628	26,512	—	—	—	—	26,512
1913–14	300	4,505	13,515	10	—	3,363	1,681	15,196
1914–15	200	7,434	29,763	10	18	7,870	3,849	33,630
1915–16	69	4,902	16,340	—	—	1,014	500	16,840

To compare with this may be given the figures for the years 1917–18 and 1918–19 of whaling in the Dependencies.

I. South Georgia: II. South Shetlands.

	Whales caught. 1917–18	Whales caught. 1918–19	Barrels of oil. 1917–18	Barrels of oil. 1918–19	Bags of guano. 1917–18	Bags of guano. 1918–19	Estimated value. 1917–18	Estimated value. 1918–19
I.	3,199	2,476	202,503	131,794	994	6,676	£ 1,566,500	£ 1,802,500
II.	1,114	1,763	55,973	84,456	—	—		

Although the catch of whales in 1918–19 was slightly less than that of the previous year, 7,000 tons more of oil were produced, and the estimated market value of it had risen from £36 to £50 per ton and was continuing to rise. In 1920 it actually rose to £90 a ton. But by 1922 the average price had fallen to £30 per ton. The export duty on whale and seal products from the Dependencies was raised as from the 1st October, 1919, to 1*s.* 6*d.* per barrel of 40 gallons of oil, and was raised again later.

At present the whaling industry of the far south is concerned chiefly with three species—the Fin whale (*Balænoptera physalus*), which rarely exceeds 85 feet in length; the Blue whale (*Balænoptera musculus*), which has been recorded as reaching more than

[1] A barrel contains 40 gallons, and about six barrels of whale oil go to the ton. The average of $86\frac{3}{4}$ barrels per whale in 1923–4 is the highest recorded.

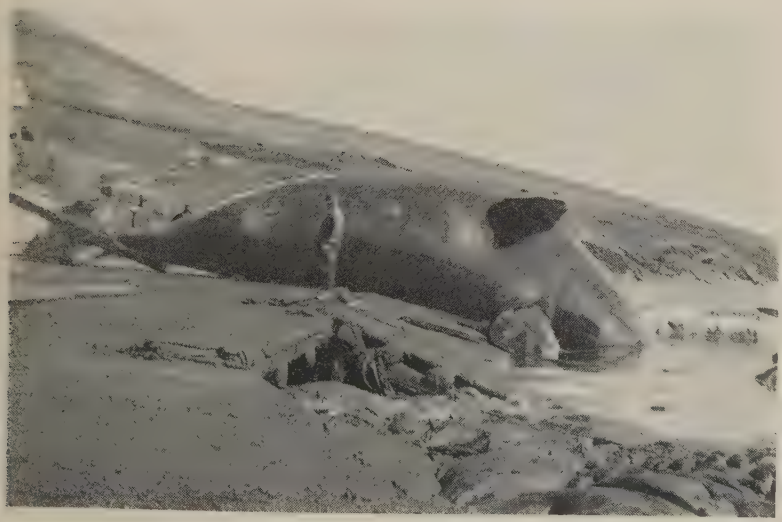
100 feet in length; and the Humpback (*Megaptera nodosa*), which seldom exceeds 50 feet in length. The great blue whale is now the principal object of the whalers' pursuit, its yield of oil being about 75 barrels. Of the 61 whale-catchers employed, 40 are Norwegian (3 being employed at the South Orkneys), 17 British, while the remaining 4 belong to an Argentine company.

The old wooden sailing-ships are no longer seen. The modern steam whale-catcher[1] 'has a length of from 110–117 feet over all, with a beam of from 21 to 23 feet, and a moulded depth of from 12 feet to 13 feet 6 inches, flush-decked, and cut away at both bow and stern in order to make the vessel answer her helm very quickly. The lines of the hull are designed for a speed of from 11–12 knots, and the engines are from 500 to 750 effective horse-power. Steam steering-gear is provided in order to operate the rudder to most advantage, and a powerful double whaling-winch of two cylinders each is fitted on the deck abaft the foremast. In the bow a glycerine recoil muzzle-loading cannon is fixed on a swivel, and so delicately balanced that, when loaded with powder and harpoon, it can be raised and lowered and turned from side to side by the harpooner without apparent exertion. The bore of the cannon varies from 3 to 3½ inches, the length being about 45 inches. The harpoon is made of the finest tempered Swedish steel, and is about 6 feet long, weighing slightly over one cwt. It has four prongs, which spring out to an angle of about 45 degrees on tightening the line after the harpoon is lodged in the whale's body. The point of the harpoon consists of a cast-iron head or shell of conical shape, about 14 inches in length, weighing

[1] For the following description of a modern whale-catcher and for other information I am indebted to the courtesy of Messrs. Theodore E. and N. G. Salvesen.

WHALE-CATCHER

towing whales into Leith Harbour, South Georgia



A SIXTY-FOOT RIGHT WHALE

(*Balæna australis*) *at New Island, West Falklands*

from 10 to 12 lb. This shell is charged with gunpowder, which is fired by a time-fuse about three seconds after the harpoon has been shot from the cannon.

A foregoer[1] of 60 fathoms in length and from 4¾ to 4½ inches in circumference, made of the finest Italian hemp, is attached to a ring in the shank of the harpoon. To the other side of the foregoer a 6½ inch to 7½ inch whale line of 120 fathoms is spliced on. The length may be increased by adding additional lines as may be required. The bow of the vessel is fitted with a double set of rollers over which the lines run, and along the keelson, from the collision bulkhead forward to the stokehold bulkhead, are arranged double rows of powerful spiral steel springs connected to two snatch-blocks above the shrouds of the foremast by strong flexible wire ropes.

The usual charge for a whaling-gun is 14 ounces of powder, and the range is only 25 yards. If a whale be struck in a vulnerable part death will usually be instantaneous. The animal will then immediately sink, drawing with it the whale-line. The steamer is brought to a standstill, and when the rope hangs vertically it is stoppered in the bow, and slack is given inboard to allow it to be passed over the snatch-blocks at the shrouds, from whence it goes to the winch, which raises the whale to the surface.

The snatch-block is, as stated, attached to powerful steel springs, and the object of this arrangement is to compensate for the rise and fall of the whaler caused by wave motion, and to effect this these steel springs should be compressible to an extent equal to the difference of level between the top and the bottom of the waves. The elasticity of the whale-line itself

[1] A 'foregoer' is that part of a whale-line which is attached to the harpoon, and requires to be stronger and more pliable than the rest of the line.

is not sufficient, and were no accumulators, as these springs are called, fitted, the strain on the rope when heaving in the whale, caused by the rise and fall of the steamer, would be greater than the strength of the line.

If the whale be not shot dead on the spot, the gunner has to play it in a very similar manner to that of the angler who has hooked a salmon. The whaling steamer plays the whale by manipulating the steam winch, and also by moving ahead and astern, but it often happens that the rope will be snapped, caused by a sudden jerk.

The animal having been raised to the surface a chain is passed round the tail and made fast at the bow of the ship, the foregoer is cut off at the harpoon, and the whale is towed at the side of the vessel tail foremost. In order to make the carcass float and thus lessen its towing weight, a hole is pierced through the body into the lungs or stomach, and the whale is inflated with air by means of a steam air-pipe in the engine-room of the whaler'.

Chief of the Dependencies of the Falklands is South Georgia, 100 miles long; an alpland rising steeply out of the sea, with many mountains. Masses of ice and snow fill the interior, and large glaciers open out into the fjords. All the best harbours are on its eastern side, including the chief settlement of Grytviken.

Four hundred miles south-east of Cape Horn lie the South Shetlands—a loose string of islands sloping south-westwards. Wild frozen islands—King George, Nelson, Roberts, Livingstone, so the chief names run—hero-names ending in a 'Hell Gates'. And a little to the south-east lies Deception Island, strangely shaped, like a sea-monster coiled asleep; with an opening between fangs and tail through which the whale-catcher slips to reach Port Foster with its ice-free beach warmed by hot springs.

A SCENE IN THE SOUTH SHETLAND ISLANDS

Still farther south the whale-catchers go, pursuing the whale through de Gerlache Strait, with Danco Coast to the east of them and the Palmer archipelago to the west—Liège, Brabant, Gand, Anvers Islands, with little Melchion rising out of Dallmann Bay.

Of the South Orkney Islands, which lie about 200 miles east of the South Shetlands, the two largest are Coronation and Laurie Islands, the latter with its meteorological station maintained by Argentina.

The South Sandwich Islands lie about 250 miles south-east of South Georgia. They are volcanic, some emitting poisonous fumes. There are two known harbours among them, one being at Southern Thule.

Mention must just be made of a little cetacean found in the seas about the Falklands and Magellan Strait—the beautiful silvery-white dolphin discovered by Philibert Commerson[1] and bearing his name (*Cephalorhynchus Commersonii*). Its body is a shining silvery white, the head, tail, and fins being a deep black. Its length is about from 3 to 4 feet.

Little is known about the dolphins of the far south; little is known concerning the migrations of the blue and fin whales.

It is mainly to study in sub-Antarctic and Antarctic seas the whaling industry—with the attendant questions of plankton migration, meteorology, magnetism, and tidal work—that the *Discovery* is setting forth in 1924. Who knows with what marvels she may return to us?

[1] He sailed with Bougainville round the world. Unfortunately he never went to the Falklands. His work has never had justice done to it.

XIII

SEALS AND SEALING

The seals formerly found about the Falkland Islands were the southern fur-seal (*Arctocephalus australis*), the sea-elephant (*Mirounga leonina*), the sea-lion (*Otaria byronia*), and the sea-leopard (*Hydrurga leptonyx*). To-day the only seal found in any numbers is the sea-lion, while a few leopard seals are to be seen in the fjords of West Falkland. Neither of these seals is of any economic value.

The male sea-lion grows to a great age, and his size is wholly disproportionate to that of the female. Captain Abbott[1] describes the male as 'large as a bullock in circumference while the female is no bigger than a calf'. Clumsy though it may seem the long flapping flippers carry it over longer distances and steeper ways than might be expected. It may be heard sometimes roaring out a challenge to some unseen rival to come and fight. The 'animal effrayant' which confronted two of Bougainville's officers when they first landed on East Falkland must have been a sea-lion. Not that this frightful lion-headed monster —'gros comme deux bœufs'—did anything alarming, for merely raising himself a moment he looked at them gravely and then sank placidly down again. It was probably his first sight of man and as yet he did not know him for an enemy.

The sea-leopard derives its name from the spots on its coat and its long sinuous body, while its skull is distinguishable from the skull of any other seal by its

[1] Abbott (C. C.), 'On the Seals of the Falkland Islands'. (*Proceedings of the Zoological Society*, 1868, pp. 189–92.)

great length and [1] ' powerful teeth, which are recognizable . . . by their large proportions and the peculiar arrangement of the cusps. Of these there are three, placed one after the other in a line running parallel to the long axis of the jaw. The apices of the two smaller and outer are usually recurved towards the larger central cusp, which itself bears a recurved apex.' It is a carnivore, feeding on fish, penguins, and an occasional octopus. ' For such a rôle, requiring both speed, strength and activity . . . its elongated head and body must be eminently suited.' [2]

The two seals the most sought after from an industrial point of view are the fur-seal for its skin, and the sea-elephant for its oil. Because of human cruelty and rapacity the beautiful little fur-seal became almost extinct at the Falklands and the Dependencies. Only within the last year or two, through the protective policy of the Colonial Government,[3] is it beginning to be seen again. At one time the fur of this species was regarded as being of finer quality than any other. When the skins were first imported into England they were used only for tanning, the wool and hair being scraped off altogether. It was not until 1796 that Thomas Chapman invented a method ' for extracting by the root the whole of the inconceivable quantity of coarse hair that grows intermingled amongst the fur in the skin of the South Sea seal '. This process is now called ' unhairing ' and calls for highly skilled work in order to remove the guard hair without injuring the valuable fur beneath. The various processes through which the skin has to pass from the time it is received in a raw salted condition until it is ready for the furrier occupy from two to three

[1] Barrett-Hamilton (G. E. H.), ' Seals '. (*Antarctic Manual for the Expedition of 1901*), Royal Geographical Society, 1901, pp. 209–24.

[2] *Ut supra*, p. 217.

[3] A patrol vessel for the protection of the fur-seal has recently been acquired.

months. The four chief stages of development may be described briefly as: (1) Washed and dried; (2) dressed (this makes the pelt soft and pliable); (3) unhaired and dressed; (4) unhaired, dressed, and dyed.

The fur-seal has large soft eyes. Pernety declared that seals have the most beautiful eyes in the world and he describes the change that comes over them in death.[1]

The other seal so valuable commercially—not for its skin but for its oil—is the magnificent sea-elephant —the 'sea-lyon' of early navigators. The male elephant when full-grown is often 20 feet long; the female is much smaller and has not the inflatable proboscis, increasing with age, which gives his name to her mate. Terrible encounters take place sometimes between the bulls. When a sea-elephant moves in a hurry it is said the vast body shakes like a great bag of jelly, owing to the mass of blubber by which the whole animal is invested and which is as thick as it is in a whale. A bull elephant may yield as much as five or six barrels of oil. Slow, trustful, sociable, defenceless on the beach because unconscious of his own power, he falls an easy prey to callous unscrupulousness. Protective legislation has been found necessary to prevent a tragedy such as that of the fur-seal, which Dr. W. S. Bruce, leader of the *Scotia* expedition, describes as a 'disaster that should not be forgotten and should at least not be allowed to be repeated'.[2]

Sealing in the South Seas began about the second half of the eighteenth century. The first sealskins and oil exported from the Falklands were those sent by the colonists from Port St. Louis to France in 1766. Pernety gives[3] a vivid picture of a seal rookery

[1] *Histoire d'un Voyage aux Isles Malouines.* Paris, 1770, ii. 46.

[2] *Report of the Interdepartmental Committee on research and development in the Dependencies of the Falkland Islands*, 1920, p. 33.

[3] *Voyage aux Isles Malouines*, 1770, ii. 42.

SEA-ELEPHANTS IN TUSSOCK GRASS, SOUTH GEORGIA

The inflation of the snout of the bull elephant increases with age and becomes more marked when the seal is irritated or exhausted

near Berkeley Sound before man, the enemy, settled on the islands. From out of the tussock-grass came a babel of sounds—like the grunting of pigs, bellowing of bulls, roaring of lions, the blowing as of great organ pipes, while the seal cubs bleated like calves and lambs.

In those times 800–900 seals were killed with bludgeons in a single day on one small islet. Byron, on Saunders Island, found innumerable seals. With the skins the ship's company made themselves coats, while the oil they used for lamps. Penrose describes the elephant seal—'the seal with the trunk nose'—as[1] 'a truly inoffensive creature and a very patient sufferer of numberless persecutions which the wantonness of cruelty could not be restrained from heaping upon it'. He says the men at Port Egmont called the elephant seal the 'clap-match'[2]; but, according to Morrell and others, writing between 1820–30, this name was given to the female fur-seal, the movements of which when roused or excited are very quick—like the flash of a gun on touching the match. When Port Egmont was evacuated by the British in 1774 ten American sealing and whaling vessels were left at the island. During the forty and odd years that the Spaniards were at East Falkland British and foreign sealers and whalers were continually at Port Egmont in defiance of Spanish behests. Not content with exterminating the seal at the Falklands they sought another hunting-ground at South Georgia and again farther south. In 1778 a French sealer found the beaches of Saunders Island lined with fur-seals and sea-elephants. Forty-two years later when the Captain's son went to the island he found none, and gave

[1] Penrose (Bernard), *An account of the last Expedition to Port Egmont*. London, 1775, p. 27.

[2] Apparently derived from the Dutch *Klapmuts*—a sailor's cap. See *Philosophical Transactions*, 1743, xlii. 612—'the Klapmyss, which has a cartilaginous Hood, which covers its eyes.'

up the voyage. When Edmund Fanning went sealing at the Falklands in September, 1792 he reports: 'On our arrival we learned the seals were up in great numbers on some of the outer islands.'[1] At Beauchêne Island, for instance, the top of a rock forming the north-eastern head of the island was literally covered with fur-seals. There were also at the islands many other American sealers. Fanning, in the brig *Betsy*, was again at the Falklands—this time at New Island—sealing, in 1798. So well did he do on these two voyages that three years later the New York owners sent him in the *Aspasia*, a corvette of twenty-two guns, on a sealing and exploring expedition to the South Seas. The *Aspasia* wintered at South Georgia, going first to Sparrow Bay in search of the crew of the *Regulator* (which belonged to the same company as did the *Aspasia*), a sealing vessel wrecked there a few months previously. There was no sign of them, however, and the *Aspasia* learnt later that an English sealer had bought the *Regulator*'s cargo—some 14,000 sealskins—and had given her crew a passage home. The *Aspasia* went round to Woodward Harbour to find there the English sealer *Morse*. Later, seventeen sealers arrived; 112,000 fur-seals were slaughtered that season, the *Aspasia* securing 57,000 skins. The American sealers took their cargo to the China market, making a large profit there. Fanning would seem to have been at the Falklands with Captain Barnard[2] in the *Nanina*, which anchored in Hooker's Harbour the 7th of September, 1812, for sealskins and elephant oil. Already the seals were getting scarce on the larger islands and were found in great number chiefly on the Jasons—Steeple Jason being the best station.

Although the Spaniards had by that time abandoned the islands they sent out yearly from Buenos Aires

[1] Fanning (E.), *Voyages round the World*. New York, 1833, p. 21

[2] See p. 83.

a *Garda-Costa* to examine the harbour for foreign vessels, and, reprehensible practice, even set fire at times to the tussock-grass to destroy the seal rookeries in the hope of preventing sealers from coming to the islands. In 1815 Fanning was again seal-hunting at the Falklands. He left nine men at Port Louis for this purpose while he went off in the *Volunteer* to the Pacific for sandal-wood. As an instance of the depredations committed by irresponsible seamen it may be noted that this handful of men in the three months they were at Port Louis, besides their cargo of seal-skins, killed 292 wild pigs, 937 wild geese; took away with them 73 barrels of penguin and albatross eggs, 5 barrels of large mullet, and some shell-fish.

With other ships' crews raiding and laying waste on the same scale it is not surprising that the islands soon became impoverished, and other hunting-grounds were sought among the southern lands and islands which are now Dependencies of the Falklands. There the same policy was followed. Weddell calculates that at South Georgia between 1775 (when Cook and Forster reported the large number of seals there) and about 1820 'not less than 20,000 tons of the sea-elephant oil had been procured for the London market'[1] alone, while the numbers of fur-seal skins from the same place he estimated at 1,200,000.

The sealer was ubiquitous. The Russian explorer Admiral Bellinsgauzen—or Bellingshausen— with the *Wostok* and *Mirnij*, sailed down the wild west coast of South Georgia in December, 1819—past Wallis Island with its three bare surf-beaten rocks to the north-west—down to the southward, past uncharted bays—in one of which he anchored, naming it Mary Haven. Serenely there came out of the bay a ship's boat with three men in her; while snugly in the bay

[1] Weddell (J.), *A Voyage towards the South Pole . . . 1822–4*, London, 1824, p. 53.

lay two English three-masters, the captains being Brown and Short. They had been sealing there for four months, and found it good hunting-ground.[1] Bellingshausen remarks that one of the crew of the English ship was a Russian—a deserter from a man-of-war when it touched at an English port. Leaving Mary Haven he sailed away towards an island which lay at a little distance. Here, at least, he found solitude unbroken by any intrusive sealer; and he called the island Annenkov, after the second officer of the *Mirnij*.

Even at the South Shetlands the Russian found sealing vessels. The *Hersilia* was at the islands in 1819 soon after their discovery by William Smith in the *Williams* of Blyth, and at Ragged Island she left 50,000 sealskins to dry. On her report of the great number of seals to be found there a fleet of five American sealers sailed from Stonington, Connecticut, and were at the islands in the season of 1820–1. Among them was the sloop *Hero*, her Captain, H. N. Palmer, being sent to explore new land seen in the distance. As he returned to the Shetlands he ran between the *Wostok* and *Mirnij*, which were also exploring. In an interview between the American sealer and Russian Admiral it would seem, according to the former, that the latter courteously suggested that the new-discovered land should be called Palmer's Land. Morrell refers to it as New South Greenland, but Palmer's name is retained to-day in the group called Palmer Islands. The number of fur-seals killed at the Shetlands between 1821–2 has been estimated at 320,000; while of elephant oil there was produced

[1] An account of the Russian explorer's travels and researches, 1819–21, was published in Russian in 1831. An abstract of the original was translated by Professor H. Gravelius for the *Verein für Erdkunde zu Dresden* in 1902. This is the edition referred to (p. 50). It is to be regretted that the whole of this valuable work has never been issued in an accessible form.

940 tons. Between 1820–2 there were 91 vessels—one half American the other half British—sealing at the Shetlands and they practically exterminated the seals at those islands.[1]

The South Shetlands would seem to have been the last refuge not only of the fur-seal but also of the mermaid. A member of Weddell's crew saw a form lying on a rock with a red human face and shoulders over which hung long green hair; it had the tail of a seal but the arms could not be seen. 'The creature continued to make a musical noise while he gazed about two minutes, and on perceiving him it disappeared in an instant.'[2] It was a wise mermaid. Possibly it had witnessed the indiscriminate slaughter of the seals—the mothers killed while the pups were too young to take to the water, so were left miserably to die.

In 1822 the *Wasp*—afterwards Benjamin Morrell's schooner—went to South Georgia for seals; but in November of that year she circumnavigated the whole island without discovering one. Though two years later Morrell found them fairly plentiful in certain of the Falklands—New Island, Beauchêne, and Sea Lion Islands. He praises their gentleness and affection for their young—especially among the hair seals—and adds: 'for sagacity they are not a whit inferior to the dog,'[3] especially in the sea.

In 1830 John Biscoe[4] sailed from London on a sealing

[1] Dr. Bruce gives some interesting details, from the shipping records of the time, of the cargoes of these sailing vessels. (*Report of the Interdepartmental Committee on research . . . in the Dependencies of the Falkland Islands.* App. II, p. 38.)

[2] Weddell (J.), *A Voyage towards the South Pole*, p. 143. Is it possible that the mermaid was the musical—if massive—Weddell seal (*Leptonychotes weddelli*)?

[3] Morell (B.), *A Narrative of Four Voyages*. New York, 1832, p. 74.

[4] His *Journal* is among the MSS. in the possession of the Royal Geographical Society.

and exploring expedition to the South Seas. He was, however, more of an explorer than a sealer. The *Tula* and *Lively* anchored in Berkeley Sound on the 10th November. On the 27th he sailed towards the Sandwich Islands looking for the mythical Auroras; and in 1831 discovered land in 67° S. latitude which he named Enderby Land after the ships' owners. Then, sailing towards the South Shetlands, he gave the name of Graham Land to part of the mainland which had been called Trinity Land by Bransfield of the *Williams* ten years previously.

Among the property taken over by the British Government from Louis Vernet in 1833 were about 1,000 fur-seal skins. Twenty years later he was still vainly demanding payment for the same.[1]

The following notes are taken from the Annual Colonial Reports, except where otherwise stated.

In 1840 a lease for three years of certain rocks for sealing was let by the British naval officer in command at the Falklands to the master of a merchant vessel at the rate of £100 per annum. The same year Lieutenant William Langdon, R.N., reported the rocky islands on the coast to be covered with seals. The fur-seal fisheries were reserved by Government, the skins being from 30*s*. to 50*s*. each. In 1849 only two boats at the Falklands were employed in the fisheries. In 1851 the seal fisheries on the Volunteer rocks fell to the annual value of £8. In 1854 Governor Rennie's report on seal fisheries was: 'the smaller vessels are occasionally employed in capturing seals, etc.; but the indiscriminate massacre of the animals at improper seasons, chiefly by American vessels who used to frequent the islands, has almost destroyed the valuable Rookeries formerly a source of much profit to the Colonists; and it will require several years of rest before the Rookeries are again frequented in numbers

[1] See p. 106.

approaching to what were formerly to be found here.' In 1866 no ships were employed in either whale or seal fisheries. Indeed from about 1830 onwards sealing at the Falklands, South Georgia, the Shetlands, and other islands was a decadent commerce. At South Georgia seals had been so persistently slaughtered that in 1885 the crew of a Connecticut schooner during the weeks of the breeding season (September to January) were able to find only two.[1]

Reference has been made in the preceding chapter to the search for whales in the southern seas by the Dundee Whaling Fleet. This fleet, which consisted of four whalers—the *Balæna*, *Active*, *Diana*, and *Polar Star*—left Dundee in September, 1892. It was primarily a commercial enterprise; but there was a scientific department attached to it, under the direction of W. S. Bruce, who was on the *Balæna*. Dr. Bruce (as he afterwards became), and Charles W. Donald, M.B., surgeon on the *Active*, have given an account of the voyage,[2] so that it is only necessary to say here that as a whaling expedition it was not successful. Neither, in spite of the scientific results obtained, was the lot of the scientists altogether a happy one. Its success as a sealing expedition may, however, be deduced from the facts that the ships were filled with skins and blubber, the seals being killed by thousands on the ice. The vessels left the Falklands for the southern fishing-grounds about the middle of December. Two months later the condition of one of the ships was such that the men were literally up to their necks in blood. The approximate

[1] Murphy (R. C.), 'The status of sealing in the sub-antarctic Atlantic' (*The Scientific Monthly*, vol. vii, July–Dec. 1918. New York, pp. 112–19).

[2] *Geographical Journal*, Jan.–June, 1896. Vol. vii, pp. 502–21; 625–43. See also W. G. Burn Murdoch's account in *From Edinburgh to the Antarctic*, 1894.

number of seals obtained by each vessel was : *Balæna*, 6,000 ; *Active* and *Diana*, 4,000 ; *Polar Star*, 2,000. They returned to the Falklands the end of February and were safely docked in Dundee by the middle of June.

It seemed high time to take measures for the protection of seals. The close time Ordinance of 1881 (Ordinance No. 4) was repealed by Ordinance No. 1 of 1899, which provided, subject to the saving of existing rights, for the issue of sealing licences, the licensee being required to render an accurate account of the number of seals taken by him during each sealing season. Sealing without a licence was prohibited.[1] In the annual report for 1903 it is noted that 'several British Columbian sealing schooners put in to the Falklands for the purpose of exporting their catch. Over 22,000 skins alleged to be pelagic were so exported. There is now power to impose, in certain circumstances, a duty of 10*s*. a skin on skins imported for the purpose of transhipment or exportation ; and should this power be enforced it is certain that these schooners will visit the colony no more'. In 1906 the produce of pelagic sealing in the South Atlantic was 22,484 sealskins, the value being £44,968. The *Report* hitherto quoted from condemns pelagic sealing[2] :—i. e. hunting the seals in the open sea instead of killing them on the breeding-grounds—and declares it to be a matter of great importance to prohibit it by international agreement, as well as to protect the animals while ashore. One of the evil results of pelagic sealing is to destroy numbers of pregnant females, or by destroying nursing mothers to involve the death of the young on shore. Another bad effect is that numbers of the animals killed are not recovered, and an entirely useless slaughter is the result.

[1] *Report on . . . research and development in the Dependencies of the Falkland Islands*, 1920, p. 106. [2] *Ut supra*, p. 18.

'And who are these?'

BULL ELEPHANT-SEAL (SOUTH GEORGIA) IN AN ANGRY MOOD

In the season of 1915 one solitary fur-seal was observed on the beach near the eastern end of South Georgia. It followed the fate of all rare animals and birds, it was promptly killed—'by mistake'—by some Norwegian whalers.[1] For the next few years not another was seen.

Between 1910–18 nearly 26,000 sea-elephants were killed in South Georgia, as many as 6,000 bulls having been killed during one summer.

'In taking sea-elephants the hunters plan first to drive the animals as near to the water as can be done without risk of their escaping. After this they are clubbed, lanced or shot, or all three if necessary. Sometimes they can be frightened and sent bounding towards the sea by the sound of small stones rattled in an iron pail. If, however, they prove too sluggish or refractory they are often treated with the most revolting brutality; anything seems to be permitted which will urge them backward and so lighten the labour of carrying blubber.'[2]

Ordinances for the protection of the sea-elephant have been made in 1908, 1914, &c., and according to later reports no decrease has been observed in the number of seals.[3]

Legislation is very necessary, and good as far as it goes; but surely mankind might by now have reached to a recognition of the inalienable rights of all orders of creation to justice and equity. It is not the ignorant only who are cruel. Even scientists cannot be held blameless for the irreparable loss of animal life throughout the world. Not all—even now—can say with Philibert Commerson: 'La vie d'un naturaliste est, je l'ose dire, une adoration presque perpétuelle.'

[1] Its skin is now in the Natural History Museum.

[2] Murphy (R. C.), loc. cit.

[3] In 1921–2 sealing operations at the Dependencies yielded 2,713 barrels of oil as compared with 2,401 barrels collected in the previous year.

PART III

GEOPHYSICAL NOTES

XIV

CLIMATE

Captain Macbride, of the *Jason*, was the first to keep a regular journal of the winds and weather of the Falkland Islands. His observations were taken, of course, on Saunders Island, and were published by the Admiralty about 1770. Some of his remarks on the weather may be quoted. Of the winds he says [1] they

'generally blow a close Reef Topsail Gale, with a cold Air. In November the winds begin to be more frequent in the North West Quarter, and is generally hazey weather, and for the most part blow about 16 or 20 hours, when it begins to rain, the Wind then regularly shifts into the Westward, and so on till it gets to the SW by S and SSW, where it blows fresh and clears up. This SSW wind continues for about 16 hours, then dies away, when the wind shifts again to the NW quarter: this continues during December, January, and February. . . . As March comes on you have these changes but seldom, and as the Winter advances they are seldom in the NW quarter but rather incline to the ENE which is generally accompanied with Sleet and Snow. There is not the least proportion in the Gales between Winter and Summer. In Summer . . . as the Winds are into the Westward they blow in such heavy squalls off the Tops of the Mountains over the Blockhouse that it is sometimes an hour before a Cutter can row to the Shore, although the Water is smooth and but the distance of one Cable and half off it. In Winter the winds are pent up by a keen frosty air; the most lasting Gales are those from S b E and S b W and are extremely cold.'

Lieutenant S. W. Clayton, who arrived at Saunders Island on the 1st of March, 1773, describes the weather

[1] MacBride (John), *Journal of the Winds and Weather and degrees of Heat and Cold by the Thermometer at Falkland Islands*, from 1st February, 1766, to 19th January, 1767. [1770 ?]

as entirely guided by the winds; the south and south-west winds being cold and penetrating, but healthy; and prevailing for two-thirds of the year. The north and north-west winds were 'mild and warm, open and chearfull', the vegetation being much promoted by them. Those from east to south

'are totally disagreeable, being cold, blighting and tempestuous. When they come on the human frame feels the shock. Poultry are drooping, crippled, and those once lamed never recover but linger, and at length dye, with one side totally decay'd; the hoggs are seized with the Staggers; the herbage is cut down, wither'd and shrivell'd, and seem as if fires had been made under them; the Leaves crumble to dust. Providentially these winds are very rare and of no long continuance.'[1]

He gives the temperature for March as averaging 52° Fahrenheit. In April it was 42°; in May between 40° and 32°; and in June and July between 36° and 28°; though in the last two months when the winds were from the south-west the temperature would fall to 20° below freezing. His thermometer broke the end of July, 'and I was deprived of a great amusement in these solitary dreary Islands.'[2]

The clearness of the atmosphere is astonishing. Only when one has ridden towards an object apparently but a mile or two away does one realize how strong the delusion has been. Frequently during the spring and summer marvellous sunsets and after-glows are seen. It is usually calm during these hours, and, owing to the undulating nature of the land, the valleys are filled with a violet haze, while the hills stand out in gold. As the brilliance—flame and coral and flamingo-red—fades away from the west the purple hues steal up, changing, paling into lavender, dove-grey, and opal-grey, further dimmed by the mist as

[1] Add. MS. 8945, f. 6.
[2] MS. *ut supra*.

the sun sinks low into the sea. With the darkness comes the Southern Cross watched for and loved by early seafarers as the Crosiers, the four stars guarding the South Pole. At such times the sweep of moorland seems illimitable; without sound save the bleating of distant sheep or the gaggle of geese on the wing to some far-off estuary.

Hitherto Macbride's journal has been unnoticed and apparently unknown. It is not only the first meteorological record relating to the Falkland Islands, but—with one exception—the only known record kept on the West Falklands, all other observations being taken on the east coast of East Falkland, chiefly at Cape Pembroke. The exception is the journal kept at West Falkland by Mr. Rupert Vallentin in 1909–10. Captain Macbride kept his journal at Port Egmont; Mr. Vallentin gives his position—as near as he could get it—as 51° 35′ S. and 60° 22′ W. A few extracts from these two journals are given below.

Mr. Vallentin's observations were always recorded at 9 a.m., local time. The surface temperature of the sea was taken from the extreme end of a small jetty in the creek, and about twenty yards distant from the shore. In the following columns is given the minimum and maximum temperatures as recorded by Captain MacBride in 1766 and by Mr. Vallentin in 1910.

Minimum

1766	1910
18 August,	23 and 24 June,
Therm: 20°.	temp. 25° F.
Wind: WSW. to SSW.	
Weather: Strong gales with snow and hail.	

Maximum

1766	1910
11 February and 12 February	January 5th
Therm: 59°.	75° F.
Wind: Northerly.	
Weather: Moderate and hazey.	

Bernard Penrose, who was on Saunders Island with Clayton, reports 'ice 2 feet thick on fresh-water ponds on Saunders's Island' in the winter of 1773–4; this winter must have been one of exceptional severity.

In the following columns will be found the temperature of the first weeks in January and July, 1766–7, taken by MacBride at Port Egmont and the temperature recorded by Mr. Vallentin for the same period in 1910, followed by the latter's summary of the winds and weather of 1909–10.

	1767				1910	
Jan.	*Winds.*	*Weather.*	*Therm.*	*Jan.*	*Air.*	*Sea.*
1	NNW. to W.	Fresh gales and squalls with rain.	51°	1	51°	51·9°
2	SW. and variable	First part as above, latter part fresh gales and cloudy.	50°	2	58·3°	51·9°
3	SW. to W.	Fresh gales and cloudy.	53°	3	58°	51·9°
4	S.-westerly	Ditto.	52°	4	60°	53°
5	Variable to SSW.	Fresh gales and hazey.	54°	5	58°	52·3°
6	SSW. to NW.	First part little wind, latter part fresh gales.	53°	6	53·9°	52°
7	SW. to W.	Fresh gales and hazey.	51°	7	52·6°	53·9°
	1766					
July.				*July.*		
1	ENE. to ESE.	Fresh gales with sleet.	40°	1	38°	40°
2	NNE. to N.	Fresh breezes and hazey weather with rain.	39°	2	34°	39·6°
3	Variable	Moderate and hazey with rain.	39°	3	37°	39°
4	S. to SW.	Ditto.	36°	4	37°	38°
5	SE. to ESE.	Fresh breezes, freezing hard.	34°	5	37°	39·6°
6	ESE. to ENE.	Ditto, with snow.	32°	6	39°	39°
7	NE.	Ditto.	39°	7	41°	40°

WEATHER

Month.	Winds at 9 a.m. (local time).								Remarks.
1909.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	
Nov. 12–30 (18 days)	4	—	—	1	9	3	—	2	Sleet showers 17th, 18th, and 24th; Hail 23rd.
December	5	1	—	3	5	12	1	4	
1910.									
January	4	—	—	1	4	15	—	7	Hail 13th and 22nd, Gale 16th.
February (25 days)	1	3	—	3	2	11	2	3	Thunder 10th, Sleet 17th and 23rd.
March (30 days)	3	6	1	5	3	9	2	1	Frost 19th, Gale 13th.
April (28 days)	5	3	—	—	5	10	4	1	Hail 2nd and 8th, Sleet 23rd, Snow squalls 27th, Snow 28th, Gales 2nd and 20th.
May (25 days)	4	1	1	4	3	6	1	5	Gales 3rd, 4th and 20th; Snow 29th; Hail 25th; Sleet 31st.
June (22 days)	6	1	—	3	1	5	3	3	Snow and Sleet 1st, 6th, 11th, 14th, 24th and 27th; Lunar halo 23rd.
July (26 days)	5	3	—	3	5	4	2	4	Fogs 1st and 22nd; Gale 23rd; Snow 2nd, 13th, 15th and 27th.
August (29 days)	9	2	6	1	4	4	1	2	Fogs 2nd and 5th, Thick fog 9th, Hail 25th, Snow 26th, Sleet 31st.
September	3	—	—	3	1	8	5	10	Snow 3rd and 29th, Sleet 17th, Lunar halo 16th.
October (20 days)	2	3	—	1	2	7	4	1	Fogs 3rd and 11th.
November (12 days)	4	—	—	—	2	—	5	1	

Weddell, who was at the islands in 1823, describes the winters as mild, and remarks: 'this climate appears to be in general much more temperate now than it was forty years ago.'[1] Mackinnon says:

[1] Weddell (James), *Voyage to the South Pole, 1822–4*, 1827, p. 95.

'In summer the thermometer seldom rises above 70, although it has been at 80; in winter it rarely falls below 30 although it has been so low as 20, but in only two or three temporary instances.'[1] Sulivan, who was at the islands at the same time as Mackinnon, remarks that October is generally the finest, and March the worst month in the year; and he praises the nights—'the stars as bright as in a tropical climate'.[2] The first to establish an observatory on the islands was Louis de Freycinet of the ill-fated *Uranie*, in 1820; he set it up near the ruins of Bougainville's Fort St. Louis.[3] Two years later came Duperrey of the *Coquille* who probably established himself on the Île de Conti, or Hog Island. Captain Ross on the arrival of the *Erebus* and *Terror* at the Falklands on the 6th April, 1842 was very anxious to correct the discrepancies existing in the reports issued by the two French observers; he set up his observatory where Freycinet had placed his, and began observations on April 15th. He and Captain Crozier of the *Terror* slept in hammocks at the observatory that they might be near their treasured anemometers and pluviameters. A tide gauge was near the jetty, and a magnetic observatory where the dip, intensity, and variation of the needle were carefully noted.[4] Captains Ross and Crozier were there from April to August, 1842.

In 1849 a new beacon was placed on Cape Pembroke,[5] and from 1850, with occasional intervals, observations

[1] Mackinnon (L. B.), *Some account of the Falkland Islands*, 1840, p. 78.

[2] Sulivan (B. J.), 'Climate and Soil of the Falkland Islands'. *Nautical Magazine*, 1841, p. 649.

[3] Desaulses de Freycinet (L. C.), *Voyage autour du Monde de la Corvette* L'Uranie . . . *1817–20*, 1841, pp. 293–4.

[4] Ross (Sir James Clark), *A voyage of Discovery and Research in the Southern and Antarctic regions . . . 1839–43*. 2 vols., London, 1847, vol. ii, 428–37.

[5] Blue Book C.O. 81, 5, 1850.

have been taken from the lighthouse; but from lack of proper supervision and instructions these records were not of much use until the *Scotia* arrived in 1903. Since then the observations taken under the supervision of Mr. John Pearce, the chief lighthouse-keeper, after Dr. Bruce, the leader of the Scottish National Antarctic Expedition, had been his guest at the lighthouse, have been excellent, and those from 1903–4 have been printed.[1] Mr. F. E. Cobb set up a station at Port Stanley in 1875, the observations of which were summarized in the *Quarterly Journal of the Royal Meteorological Society* in 1880 (vi. 199–202). In 1903 Mr. Mossman, the meteorologist to the *Scotia* expedition, set up a sunshine-recorder at Stanley, which has continued in working order until the present day. The tabulation of these sunshine cards from 1906 to 1915 has been given by Mr. C. E. P. Brooks, M.Sc., with the results of observations in East Falkland in 1842, from 1875–7, and 1881–3.[2] Mr. Brooks has gone so fully into the matter that it is unnecessary to give further details here. As he points out, meteorologically the islands lie in the southern temperate storm belt, but north of the line along which the cyclonic centres most frequently pass, so that the winds are almost invariably between south-west and north-west, while a large proportion of them are fresh or strong, and gales are frequent. Barometric pressure is highest in September (Cape Pembroke, 1,005 mb.), and lowest in November (Cape Pembroke, 999 mb.).

At Cape Pembroke temperature[3] is highest in January (49·3° F.) and lowest in July (36·7° F.), giving

[1] *Scientific Results of the Scotia expedition, 1902–4.* Vol. ii, Physics.

[2] Brooks (C. E. P.), *The climate and weather of the Falkland Islands and South Georgia.* London, Meteorological Office, Air Ministry. Geophysical Memoirs, No. 15, 1920, Appendices.

[3] Mean of six daily observations for the years 1905–15.

a range of only 12·6° F. The corresponding figures for Kew (forty years normal) are 62·7° F. in July and 38·8° F. in January, so that at Cape Pembroke the winters are slightly colder and the summers several degrees cooler. January and February are the sunniest months with 5·4 hours sunshine, and June the least sunny, with 1·6 hours. During the year an average of 177 days have less than three hours of bright sunshine.

The rainfall is distributed among a large number of rainfall days, so that excessive falls in one day are not frequent, especially at Stanley, where the greatest fall in thirteen years was only 1·7 inch.

Fog occurs on an average of fifty-four days, distributed throughout the year.

The storm records kept by the lighthouse-keepers on Cape Pembroke from 1905–15 are given by Mr. Brooks in Appendix IX of his work.

The variations of the surface temperatures of the sea in Stanley Harbour have been recorded by Dr. Schott;[1] those for 1898–1900 in part by Mr. Vallentin and Mr. William Biggs.

It should be remembered that the weather of one part of the world has a very close relation with that of another. For instance, a cold winter in the Weddell Sea presages a drought at a certain time over the grain-bearing lands of Argentina. It will in time be recognized that a closer study of meteorology and its sister sciences is worth while even from an economic point of view.

[1] Schott (G.), *Temperaturen des Oberflächenwassers im südlichsten Südatlantischen Ozean.* (*Annalen der Hydrographie und Maritimen Meteorologie.* Berlin, Dec. 1906, pp. 602–5.)

XV

STONE-RIVERS

One of the most remarkable sights of the Falkland Islands are the stone-rivers or streams of stones. Sir C. Wyville Thomson aptly describes them[1] as 'pale grey glistening masses, from a few hundred yards to a mile or so in width, which look at a distance much like glaciers descending, apparently, from the adjacent ridges, and gradually increasing in volume, fed by tributary streams until they reach the sea'. Phineas S. Abraham says of them that they recall the apparent moraines of the Hartz mountains.[2]

One of the largest stone-rivers, stone-runs, or streams of stones in the islands lies about six miles to the south-west of Uranie Bay, Berkeley Sound. It is the one studied by Pernety and Darwin, and was known once as the 'great valley of fragments'.

To Pernety, coming unexpectedly upon the sight after about an hour's walk from their landing-place, it seemed the result of an earthquake. 'Il présentait', he says,[3] 'un spectacle si horriblement beau que j'ai été extrêmement mortifié de n'avoir pas assez de temps, ni les instruments nécessaires, pour en dessiner la représentation en entier. Un Peintre y auroit trouvé de quoi faire . . . un superbe tableau de ruines.' He then continues to describe a kind of amphitheatre about a hundred paces away; then an innumerable

[1] Thomson (Sir C. W.), 'The movement of the soil cap' (*Nature*, vol. xv, February 22, 1877, p. 359).

[2] *Ut supra*, vol. xv, March 8, 1877, p. 431.

[3] Pernety (A. J.), *Histoire d'un voyage aux Isles Malouines, fait en 1763 et 1764*. 2 vols., Paris, 1770, vol. ii, pp. 1, 6. Plate xiii, fig. 1, is an illustration of the stones.

quantity of stones thrown one upon the other in disordered order. On one of the larger stones, which formed a table some ten feet long and six wide, he tried to engrave a name, but so hard was the stone that he could not make on it the least impression. Beyond these ruins was a deep valley, the bed of which was covered with stones, and which seemed as though it had at one time held a river rushing to the sea.

Darwin also studied this stone-run. Although stone-rivers are not so numerous on West Falkland as on the eastern islands—owing probably to a deeper layer of surface soil on the former—there is on West Falkland a stone-run equalling, if not exceeding, the great Prince's Street stone-run near Berkeley Sound. It almost fills up the entire valley to the eastward of Mount Adam.

A stone-river always shows the same structure ; and is always found on a hill-side or valley, where the slope of the ground can never be called steep. The width is generally one-half the length. The blocks of quartz-like rock of which every stone-river is composed, vary both in size and form ; and the ends are always rounded off by weathering. This feature seems to indicate that all were detached from their original beds ages ago. The rocks in a stone-river are not heaped up in any way, but are uniformly spread over the ground, giving one the impression that they had been scattered broadcast. A main body or central stream can always be distinguished in every stone river, while the tributaries join the main stream as a rule at right angles to it.[1] 'One can always', adds Mr. Vallentin, 'find in every stone-run islets of vegetation, varying in extent, placed close . . . to the

[1] Vallentin (Rupert), Notes on the Falkland Islands (*Memoirs and Proceedings of the Manchester Literary and Philosophical Society*, July, 1904, No. 23, pp. 2–4.)

A STONE-RIVER, STONE-RUN, OR STREAM OF STONES

edge. In those islets where the separation has been recent the various plants of diddle-dee (*Empetrum rubrum*) and the ferns *Blechnum penna-marina* and *B. tabulare* appear to be flourishing; but in those farther removed from the edge of the stone river the sole survivor of the old peat soil will be the long-enduring *Bolax glebaria*.

Examination reveals the fact that the rocks fringing the sides and end of a stone run are invariably free from lichens, the last ones lying bare to the winds; while those higher up and at some distance from the edges are more or less covered with these lowly plants. This fact, says Mr. Vallentin, shows that the rocks have been gradually uncovered and worn away by a process to which long spaces of time were necessary.

Darwin, like Pernety, ascribes [1] the origin of the stone-rivers to volcanic action; but Sir C. Wyville Thomson thinks that the rocks have been conveyed to their present position by a downward movement of the water-drenched soil cap.

'The blocks of quartzite in the valleys are derived', he says,[2] 'from the bands of quartzite in the ridges above, for they correspond in every respect. . . . The process appears to be this: the beds of quartzite are of different hardness; some are soft, passing into crumbling sandstone, while others are so hard as to yield but little to ordinary weathering. In the process of time the harder blocks tumble from their places and these fragments eventually collect in the valleys and form the "stone-rivers" of to-day.'

Professor James Geikie draws from this the inference

[1] Darwin (Charles), *Journal of Researches into the Geology and Natural History of the various countries visited by H.M.S.* Beagle 1839, p. 254; Darwin (C.), Geology of the Falkland Islands (*Quarterly Journal of the Geological Society*, ii, Pt. I, March, 1846, pp. 267–74.)

[2] Thomson (Sir C. W.), *The Atlantic. A preliminary account of the general results of the exploring voyage of H.M.S.* Challenger. 2 vols., 1877, vol. ii, pp. 246–7.

that these stone-rivers indicate a change in the climate of the islands.[1]

Mr. Vallentin's study of the stone-rivers leads him to differ from Thomson's theory that they are caused by a downward creep of the soil covers. He thinks they are part of the original structure of the islands and were in their present position ages before the peat was formed. On digging into the peaty soil adjacent to every stone-run will be found rocks identical—both in form and structure—with those already exposed. Owing to changes in the climate vegetation spread over the land, perhaps covering the stone-rivers. Now, owing to a fresh change in the climate, denudation, heralding a slow process of demolition, is setting in; and, speaking geologically, at no far distant age the whole archipelago will be nothing but a barren heap of rocks and sand.[2]

A reminder of the continuous change taking place, though with infinitesimal gradations, is given by the sound of running water. In the driest, stillest weather —even when invisible—it can be heard beneath the rocks—like the waters of Morris's *Hollow Land*—

> Coldly slipping through
> Many green-lipped cavern-mouths.

In winter, after a steady downpour, when the camp is saturated, the water pours forth from the foot of every stone-river in a raging torrent, dark and brown with the particles of peat washed down from the heights.

An admirable monograph on stone-rivers has been written by Herr Stechele,[3] who examines the various

[1] Geikie (James), *The Great Ice Age*, 1894, p. 722; Movement of the soil cap (*Nature*, vol. xv, March 8, 1877, p. 431.)

[2] Vallentin, loc. cit.

[3] Stechele (Bernhard), *Die Steinströme der Falklandinseln*, Munich, 1906. (*Münchener Geographische Studien.* Herausgegeben von S. Günther, 20 stück.)

theories put forward from Pernety in 1764 to Dr. J. Gunnar Andersson of the Swedish Antarctic Expedition of 1901–3, under the leadership of Dr. Otto Nordenskjöld. Stechele dismisses the endogenous explanation of the phenomenon put forward by Pernety and Darwin, and falls back on exogenous forces as the true cause of stone-rivers. He points out that Mr. Vallentin's theory gives no data as to the origin of the stone-runs—which he attributes to the end of the Ice Age—but only as to their relative age. He also declares that Mr. Vallentin's view does not necessarily refute that of Sir C. Wyville Thomson. For if, he says, the covering soil with the enclosed blocks had been pushed down into the valley, and the movement had come to rest, then the denudation would remove the peat soil first from the upper parts, and not till then from the under parts of the stone-river.

J. Gunnar Andersson inclines wholly to Thomson's theory. Among his excellent photographs is that of the stone-river—used also by Stechele in his illustrations—taken by Schulz, who went on a voyage to South America, Tierra del Fuego, &c., in 1875, when he came to the Falklands to examine their formation. Schulz has also written on their stone-rivers.[1] Andersson thinks the formation of the stone-rivers ought to be regarded as belonging to a sub-glacial facies of the Ice Age, when there existed in the islands a climate not favourable to the formation of glaciers, but in winter time permitting the deposition of a thick snow-cover which, when melting in summer time, caused a slow but extended movement of the detritus down hill.

'This process, the slow flowing from higher to lower ground

[1] Schulz (Gustav), *Ein Besuch auf den Falklandinseln.* Braunschweig, 1891. (Globus. *Illustrierte Zeitschrift für Länder-und-Völkerkunde*, Band lx, No. 12.)

of masses of waste saturated with water . . . I have proposed to name *solifluction*. . . .[1] It is quite evident that the large stone rivers once formed masses of flowing soil which are now fixed, washed by surface water and partly grown over by vegetation.'

Andersson enters at some length into this question of solifluction, points out the evidence of glacial action on the islands, and deals with the changes of level they have passed through in various geological times. He regards the stone-rivers as a key, in some sort, to these changes of level.

'It has been proved', he says,[2] 'that the Falkland Islands were once submerged 46 m., probably 73 m. underneath, and at another time emerged at least 69 m. above, their present level. As in some places the stone-rivers descend to (and possibly underneath) the sea surface in the valleys which form the landward continuation of the bays, it is evident that the formation of the drowned valleys is previous to the period of solifluction that gave origin to the stone-rivers. . . . During the Ice Age the level of the island groups was at least as high as to-day. Whether the islands also during that time remained on a higher level than at present may be settled by future researches into the possible extent of the stone-rivers underneath the sea-surface.'

A later writer—Thore G. Halle—thinks with Andersson that the Ice Age in the Falklands was represented by a great development of the process of solifluction. Halle refers to the discovery of the tree-trunks at West Point Island as throwing some light on the former climate of the islands.[3] These

[1] Andersson (J. Gunnar), *Contributions to the Geology of the Falkland Islands*. Stockholm, 1907. (*Wissenschaftliche Ergebnisse der Schwedischen Südpolar-Expedition 1901–3*. Band iii, Lieferung 2, p. 21.)

[2] *Ut supra*, p. 34.

[3] Halle (Thore G.), *On the geological structure and history of the Falkland Islands*. Upsala, 1912, pp. 206–18. (No. 4 of the series of the geological publications of the Swedish Expedition to Patagonia and Tierra del Fuego, 1907–9.) (*Bull. Geol. Inst. Univ. Uppsala*, vol. xi). With sketch-map showing the places where the forest-bed was found.

tree-trunks were discovered in 1899 by Mr. A. E. Felton. He at first thought they were the hulk of a Spanish treasure-ship, and then inclined to the view that they were purely a local deposit. Fragments were sent to the museum at Stanley; one was also presented to Dr. Bruce, of the Scottish Antarctic Expedition, and is now in the museum at Edinburgh.

Halle visited the forest-bed, which is round the inner side of a little bay forming the harbour of West Point Island, and pronounced the deposit to be a forest-bed of pre-Glacial Age, and the trees to belong to at least two different kinds of conifers. There is no beech among it so it cannot, he says, be drift-wood—which is always beech from the forests of Tierra del Fuego; and he defines the forest-bed as being of Quaternary Age, and compares it with the Cromer forest-bed in England.

Mr. Vallentin thinks that this so-called forest-bed is nothing but driftwood, for all the pieces unearthed were short—none longer than six feet; all were water-worn, and many pieces were pierced by the ship-worm *Teredo palmulata*. Dr. Baker, the Government Geologist who investigated the geology of the islands in 1920–2, is of the same opinion, regarding the tree-trunks[1] as 'drift-wood deposited on a beach subsequently raised and buried beneath hill-wash and peaty growths. That coniferous trees agreeing anatomically with the wood of the alleged forest-bed are not met with to-day in South America south of Lat. 43° proves nothing. It would be a much more significant fact if some of the trees had been discovered standing vertical, in the position of growth.'[2]

Dr. Baker considers that the formation of the stone-runs is not the result of a slow process which is

[1] Even had they been found well inland.

[2] Baker (H. A.), D.Sc., D.I.C., &c., *Final Report on Geological Investigations in the Falkland Islands, 1920–2*. [1924], p. 33.

still continuing; the stone-runs were all produced at one and the same time, and that time was the Pleistocene Ice Age. He assumes [1] that the Falkland Islands must have existed then as a small isolated group of islands.

'With the advent of glacial conditions the snow-line descended to sea-level and only the quartzite crests of the highest areas remained as "nunatakka" protruding through the universal ice-sheet . . . No far-travelled rocks entered the area. The uniform character of the quartzitic sandstone rock undergoing glaciation led to similar uniformity in the character of the débris deposited. . . . The "rivers of stones" simply represent the material accumulated in the valley-bottoms from the screes which formed as the result of frost-action upon the exposed "nunatakka". Blocks of stone, split off from the exposed ridges, slithered downwards over the icy surface and accumulated below. With the periodical melting of the snow and ice, the valley-bottoms were scored and deepened by the rushing torrents, and the blocks subsided . . . to their present resting-places, the later stages in their transportation, just prior to their final arrestment, being no doubt largely the work of mud-streams.'

Dr. Baker found an abundance of evidence to prove that there has been an elevation of the land in recent times. On the other hand he was unable, he says, to find any trace of the submergence—a Quaternary submergence prior, and a submergence subsequent, to this movement of elevation—referred to by Professor Andersson. Neither did he recognize in any of the numerous creeks any clearly marked features which pointed to their being submerged river-valleys.

'In the great majority of cases these creeks are clearly synclinal folds or eroded anticlinal folds, the structure of which continues sea-ward, and in other cases there is little doubt but that the depressed areas now occupied by arms of the sea represent lines of weakness set up by faulting.' [2]

[1] *Ut supra*, pp. 31–2.

[2] *Ut supra*, p. 32.

Roughly speaking, all West Falkland—with the exception of two spots at Cape Meredith and Roy Cove which are Archæan—and the northern part of East Falkland, belong to the Devonian Age. The southern portion of East Falkland—Lafonia—is Permo-carboniferous. A great length of time must have passed between the formation of the Archæan and the beginning of the early Devonian stage. The land south of the Wickham Mountains and the small islands round the south of East Falkland are all Lafonian, of Upper Palæozoic Age. The Lafonian beds are a later formation, and are comparable with the Karroo or Gondwana formation. In fact, the rock-succession in the Falkland Islands is essentially similar, as both Dr. Halle and Dr. Baker point out, to that of the Cape Colony.

From the economic point of view this resemblance is unfortunate. Dr. Baker found no coal; iron-ore—containing 58·95 per cent. of oxide of iron—is found only in small local patches. The kaolin deposits are unimportant. The yellow mineral at the Archæan exposure of Cape Meredith proved to be—not gold, but iron-pyrites. The possibility of the occurrence of liquid petroleum in the islands can only be settled by exploratory boring; one site suggested by Dr. Baker being in West Lafonia, midway between Orqueta and Mariquita. Dr. Baker's report on the beach sands of the Falklands has already been referred to.

The marine fauna of the fossiliferous sandstones and shales of the Falkland Islands has already been dealt with by Dr. Clarke, who has published a description, with plates,[1] of the fossils collected by Professor Andersson, Dr. Halle, and Sir William and Lady Allardyce. Dr. Baker has added a supplementary list.

[1] Clarke (John M.), *Fosseis Devonianos do Paraná.* (Monographias do Serviço Geologico e Mineralogico do Brasil. Vol. i.) Rio de Janeiro, 1913.

Dr. Clarke also proposed the name of 'Falklandia' 'for the continental land which, during the Devonian period in the occidental parts of the southern hemisphere, preceded Gondwanaland and Antarctis'.[1]

Looking on a stone-river to-day it seems far from its greyness to 'Falklandia'. Yet, in time, those 'pale grey glistening masses' may lead human thought from 'Antarctis' and 'Falklandia' back through unimaginable ages to some dim, brooding morning of the world.

[1] *Proceedings of the National Academy of Science of the United States of America*, vol. v, No. 14, pp. 102–3, April, 1919.

XVI

FLORA

Several works on the botany of the Falkland Islands —culminating in Mrs. E. F. Vallentin's admirable illustrations [1]—have already been published, it is therefore only necessary to touch briefly on the subject here.

Pernety [2] was the first to draw up, in 1764, a detailed report of the vegetation, and, as is natural, he is concerned more with the edible plants, as they affected the health of the colonists. As stated previously, Philibert Commerson unfortunately never came to the islands. Ruiz Puente during his term of office at Port Louis gathered together a collection of the flowers, birds, fishes, and seaweeds of the colony and dispatched them in 1769 to his chief at Buenos Aires ; [3] but it is not known what became of this collection. Both these reports deal, of course, with East Falkland. Clayton, the naval officer in charge of Port Egmont in 1773, was the first to describe the flowers of the western islands.[4] His description is little known, and has a certain quiet, unconscious beauty of phrasing usually lacking in botanical reports. In 1829 Gaudichaud, the botanist on the *Uranie*, made a study of

[1] Vallentin (E. F.), *Illustrations of the Flowering Plants and Ferns of the Falkland Islands*. With descriptions by Mrs. E. M. Cotton, 1921.

[2] Pernety (Antoine Joseph), *Histoire d'un voyage aux Isles Malouines, fait en 1763 et 1764*. 2 vols., Paris, 1770, vol. ii, pp. 51–65.

[3] See p. 57.

[4] Add. MS. 8945, f. 6.

the vegetation round Port Louis [1] when his ship was wrecked in Berkeley Sound; and Dumont d'Urville of the *Coquille* in 1822 continued the work. Darwin's visit in 1834 is too well known to be touched on here; moreover the species collected by him are included in Hooker's magnificent *Flora Antarctica*. In 1842 when Captain—afterwards Admiral—Sulivan was at Stanley Mrs. Sulivan made a collection of the surrounding flora.[2] These were examined by John Lindley (then Professor of Botany at the University of London) who named some of the plants after the finder. Willibaldus Lechler, the German botanist, seems to have been at the islands in 1850 and again in 1852 and obtained various species of algae and lichens, a list of which may be found hidden away in a little paper-covered book published at Stuttgart in 1857.[3] The *Nassau* Hydrographic Expedition touched at the Falklands in 1867, but nothing of much interest has been noted by Cunningham [4] concerning the flora of the islands; of the stay of the *Challenger*, already referred to, the botanical report of which appeared in 1885,[5] the same may be said.

Of the many recent Antarctic Expeditions the Swedish Expedition of 1901–3 deals most fully with the islands. Dr. Carl Skottsberg who was a member of the Expedition and has since visited the islands as Leader of the Magellan Expedition has published an

[1] Gaudichaud (Charles), *Rapport sur la Flore des Iles Malouines*. (*Annales des Sciences Naturelles*, Paris, 1825, vol. v, pp. 89–110.)

[2] Sulivan (Henry Norton), *Life and Letters of the late Admiral Sir Bartholomew James Sulivan*. London, 1896, p. 51.

[3] Lechler (W.), *Berberides Americae australis . . . accedit enumeratio plantarum, quas in America australi auctor detexit*. Stuttgart, 1857.

[4] Cunningham (R. O.), *Notes on the Natural History of the Strait of Magellan*. Edinburgh, 1871.

[5] Hemsley (W. B.), *Report on our Present State of Knowledge of various Insular Floras. Report on the Scientific Results of the voyage of H.M.S.* Challenger, Botany, vol. i, 1885, pp. 1–75.

admirable monograph on their land flora.[1] Selim Birger, who went out in 1904 to Stanley to arrange the collections left by the *Antarctic* when continuing her voyage to the south, made a study of the vegetation on the outskirts of Stanley and published the result of his fortnight's investigation.[2] The botanical results of the Scottish National Antarctic Expedition 1902–4 under Dr. Bruce deal principally with the South Orkney Islands and Gough Island.

In a wind-swept country such as the Falklands one place seems to resemble another in outline and appearance, all being undulating grass-land and 'diddle-dee.' Looking down from a height the general aspect is grey. The rocks which, seen close, are streaked with red and gold lichens, become merged in grey distance; and grey seems the far-off, unquiet sea. The absence of trees—though, as will be seen, attempts are being made to introduce them—adds to the monotony. 'Pas un arbre, pas un véritable arbrisseau ne vient rompre l'uniformité de ces vastes solitudes,' wrote Dumont d'Urville in 1822.[3] The blossoming shrubs bear no brilliant flowers to bring colour to the landscape, but delicately tinted blossoms, frail-seeming, many most sweetly scented, and almost hiding from view.

Clayton, who landed at Port Egmont the 1st of March, 1773, found then, he said, 'wild myrtle, four or five feet high,[4] an evergreen, blossoming in March

[1] Skottsberg (C.), *Botanische Ergebnisse der Schwedischen Expedition nach Patagonien und dem Feuerlande*, 1907–9, iii. *A Botanical Survey of the Falkland Islands*. (*Kungl. Svenska Vetenskapsakademiens Handlingar*, Band 50, No. 3. Upsala and Stockholm, 1913).

[2] Birger (S.), *Die vegetation bei Port Stanley auf den Falklandsinseln*. (*Botanische Jahrbücher für systematik Pflanzengeschichte und Pflanzengeographie*.) A. Engler, Leipzig, 39 Band, ii Heft, pp. 275–305.

[3] D'Urville (J. Dumont), *Flore des Malouines* (*Mémoires de la Société Linnéenne de Paris*, 1826, vol. iv, part ii, pp. 573–621.)

[4] 'Lieutenant Clayton hath two or three of these shrubs in his garden at Peckham.' (*Philosophical Transactions*, 1776, vol. lxvi, p. 100). It is *Veronica elliptica*.

and April a white blossom with a faintish violet smell. The wood sorrel', he continues,

'in the spring season they blow a white flower forming a Cup, and are most like the wild Roses which grow in our hedges in England . . . the small shrub with the pale red berries like a cranberry but smaller than a currant,[1] all the summer and Fall of the year the constant food of the wild geese. Early in September the ground is covered with a great quantity of wild flowers, their leaves are soft and silky like the auricular . . . a stem rises from the Center, and on its top spreads out a round head with several petals of a white Coulour but sweet to smell, I called them malouine auriculars.[2] . . . In very rocky ground growing out from the cliffs close to the sea shore grows a small shrub, which in February and March blows a beautiful flower in form of a Woman's Pocket, of a fine hue and rich appearance, I called it the Queen's Pocket.[3] A yellow flower [probably *Viola maculata*, flowering in December] on a slender Stalk with grassy leaves, of the species, I think, of the Lilly, grows here; the common Daysy, butter-flower and Clover I found upon the Island.'

He also refers to the quantity of 'moss, tinging everything a coarse red when wett with water'. Clayton's wood sorrel is the beautiful little *Oxalis enneaphylla*, which is described and drawn by Pernety. It is a delicate little plant with a fragile stalk 'couleur de cerise', as he says; its leaf is a vivid green shaped like a shamrock and it blows a single yellow, white, or pink flower. Pernety calls it *vinaigrette* and describes it as 'exhalant une odeur d'amande très suave'. The early colonists used to boil it down with sugar and call it scurvy-grass[4] jam. The wild celery, Pernety says, was called by the sailors *Persil de Macédoine*. He devotes many lines to a description of

[1] *Empetrum rubrum.*

[2] A very exact description of *Primula farinosa.*

[3] *Calceolaria Darwinii*, or *Calceolaria Fothergillii*; the former is now very rare.

[4] Not to be confused with the Scurvy Grass *Cochlearia officinalis.*

CHILIOTRICHUM DIFFUSUM (*Fáchima*)

OXALIS ENNEAPHYLLA (*Wood Sorrel*)

PEREZIA RECURVATA (*Sea lavender*)

SISYRINCHIUM FILIFOLIUM (*'Pale Maiden'*)

Myrteola nummularia, of the berries of which his officers made themselves a drink which they called *Lucet musqué*, and which was distinguished by 'l'odeur douce et suave du myrrthe'. Some of the berries he describes as being as large as little plums. They did not, as subsequent colonists did, use it instead of tea, by infusing it in boiling water, but in 'de l'eau-de-vie avec du sucre'. He shows a drawing of this modest creeping plant with its tiny dark leaves, and pale berry. Both Clayton and Penrose call it—'improperly' as the former says—a *maidenhair*.

A growth which puzzled Pernety, as it has since puzzled many, was that singular plant *Bolax glebaria*, or 'misery balls' as they were sometimes called because the land on which they flourished was so poor it would grow nothing else. He calls it 'plante au vernis' and experimented with the gum, which, he says, is white when soft, deepening into amber as it hardens. Penrose believed it at first to be the work of a mole; he also describes it minutely and made repeated experiments—in vain—to find out if the gum had any medicinal properties.[1]

It abounds far and wide in the islands, and appears as a green hard rounded nob protruding from the soil, at times three or four feet high and perhaps six feet or more in diameter. But for its green colour it resembles at first sight a rounded boulder, but is not so hard; owing to the thickness of its texture it soon becomes dry even after the hardest downpour. Under the warming influence of a few hours sunshine a gum of a decidedly aromatic odour exudes in abundance; at first light yellow in colour it soon assumes a darker hue. The flowers are peculiarly insignificant, one has almost to search for them, but they can be found early in January, and the seeds may be gathered

[1] Clayton brought some of the gum to England 'and it is now on trial by an eminent surgeon.' *Phil. Trans.*, 1776, vol. lxvi, 105.

late in the autumn. Penrose gives the average dimensions as 2 feet in height and 9 feet in circumference, but Mr. Vallentin found one near Shallow Bay that measured 23 feet 6 inches across. It seemed to be formed of several plants.

The rate of growth is very slow; and, if they could speak, some of the larger plants might relate marvellous things. There is a singular feature about this plant. If the surface is in any way damaged or cut into with a knife the rain soon lodges in this cavity and a rapid decay of the whole plant ensues, so that in a few months will be destroyed a plant which may have taken centuries to reach its present growth.

The earliest flowering plant—and the commonest—is the diddle-dee (*Empetrum rubrum*) which first begins to show its crimson petals about the 12th September. Skottsberg describes it as 'abundant in the heath, from the sea-level to the summits of the mountains'.[1] Its red blossom is insignificant and would be passed over unless searched for. It is the heath of the islands. The berries are a bright crimson and full of juice, and become fully ripe by the middle of March. They are a favourite food of the birds. Soon after *Empetrum rubrum* the beautiful *Sisyrinchium filifolium*—the 'Pale Maiden' of the colonists—opens her sweet-smelling bells to the spring. These delicate white flowers rise some inches above the surrounding herbage and one wonders how they endure rough moor and rougher winds. On the West Falklands it is found in flower early in October; and it continues blooming until December, as does the beautiful *Oxalis enneaphylla* with its frail pale blossoms often hanging over rocks.

As spring passes to high summer in December comes the orange-scented Veronica (*Veronica elliptica*), the most attractive shrub in the islands. In many of the sheltered creeks and coves on the western Island it

[1] *A Botanical survey of the Falkland Islands*, *ut supra*, p. 40.

attains quite a considerable size. It has been introduced into the gardens in Stanley; but after a time is invariably killed by the frosts.

Next in height to *Veronica* and in full blossom at Christmas time is the Fâchima bush (*Chiliotrichum diffusum*). In many valleys Fâchima bushes abound and grow to a considerable size—from 4 to 6 feet high. They are not nearly so plentiful as in the early days, being 'quite useless' in the eyes of sheep-farmers, and so are ruthlessly destroyed. The flowers are white, and at times so luxuriant that they almost obscure the green leaves on the branches; it has a curious aromatic scent.

Near the sea-shore, delighting in the sand, there flowers in January the sea lavender (*Perezia recurvata*). The shrub is small and straggly, but the clover-scented, azure blossom is singularly attractive, being the only pure blue flower of the islands.

Another common plant, or dwarf-shrub of the heath, is *Baccharis magellanica*, which, being in full flower at Christmas time, is used everywhere instead of holly. The beautiful fern *Blechnum tabulare* is abundant in places and grows luxuriantly on the hill-sides. Mr. Vallentin found a specimen growing amid a pile of rocks near Shallow Bay which measured just 10 feet in diameter. *Blechnum penna-marina* covers the camp for many yards and is common throughout the islands. Growing everywhere, but most luxuriantly on damp soil near rivers and waterfalls is the ubiquitous Pig vine (*Gunnera magellanica*), which no animal will touch, neither will any eat the ferns *Blechnum tabulare* or *Blechnum penna-marina*.

The common laburnum flourishes and flowers luxuriantly, as do also crocuses and daffodils; but roses—some were obtained from Messrs. Sutton in 1891—will not flower out in the open.

With regard to cultivated land it must be remem-

bered that much of the soil is peat (though in other places it is loam or clay), rich in nitrogen—although in an inactive form—but markedly deficient in lime.[1] The gardens on the western island seem to have flourished better than those on the eastern—certainly a well-stocked cabbage garden was part of the booty (appreciated or not) that fell into Spanish hands at Port Egmont in 1770; while, in 1773–4, the gardens were, according to Penrose, the glory of the colony. These were, it seems, thirty-eight; they

'lay about a mile from the settlement at the bottom of a bay, sheltered on each side by two large hills and exceedingly well-watered. The soil was fine black earth, rather shallow; but this we remedied by bringing in large quantities from other places, and forming it into beds. The manure we made use of was decayed seaweed. We were plentifully supplied with potatoes, cabbages, broccoli; carrots, turnips, spinnage, parsley, lettuce, English celery, mustard, cresses, and some few, but very fine, cauliflowers . . . onions, the savoury ingredient so necessary to render our geese truly delicious, were sadly wanting: they grew up, but the roots were never of any size . . . beets and radishes quite baffled our utmost art. The pease we set were totally destroyed by the mice . . . wheat under our management would not come to perfection.'[2]

The ruins of these turf-sheltered gardens are still visible and extend for at least a mile and a half.

Certainly they managed things better on the western island; for when the *Erebus* and *Terror* reached Port Louis in April, 1842, the Ross expedition found no fresh vegetables obtainable—indeed, 'no green thing but some turnips'. The Chelsea Pensioners who came out in 1849 to garrison the island (being doubtless sent to enjoy the air by a grateful Government in return for past services) were each given a little

[1] Which is needed to correct the acidity of the soil and promote nitrification.

[2] Penrose (Bernard), *An account of the Last Expedition to Port Egmont . . . in the year 1772.* London, 1775, p. 19.

plot of land on which to plant their little cottage (they brought their cottages with them) and grow vegetables.

They seem to have done this with a certain amount of success and left their gardens to their successors, who came out a few years later under Captain Abbott; for in 1857 Governor Moore was able to report: 'much garden ground has been reclaimed and cultivated during this year by the troops of the garrison'; while the following year sixteen or seventeen acres of garden ground, attached to a newly established dairy close to Stanley, were enclosed 'preparatory to cultivation on a considerable scale'. The eighteen tons of vegetables brought to market in 1862 and sold at 3*d.* a pound had by 1865 increased to forty tons; while the following year the newly appointed governor —William Cleaver Robinson—reported: 'a society has been established for the encouragement of market-gardening which has already done much good.'[1] In 1870 the Governor, Colonel D'Arcy, wrote somewhat forlornly to Sir Joseph Hooker at Kew that the colonists were very anxious to help themselves by raising vegetables 'but the wind actually blows the seed out of the ground'. Hooker thereupon suggested that the wind might be kept off to a certain extent by a hedge of veronica.[2]

The absence of trees gives an unfavourable first impression of the islands. Possibly if the visitor came direct from a thickly wooded land the impression would be different; but to eyes tired with far horizons

[1] Blue Books, P.R.O., C.O. 81.

[2] A selection of red and white currant canes, raspberries, gooseberries, and blackberries were forwarded to the islands from Kew, 27 December, 1848. (Royal Botanic Gardens, Kew. *Bulletin of Miscellaneous Information*, No. 5, 1919, p. 212.) These have done well. Between the 8th of February and 2nd of March there were picked one year in a garden at Shallow Bay 59 lb. of raspberries and 68½ lb. of currants.

and illimitable seas, and longing for green leaves, the stark hills and surf-stung rocks, and wide-flung sweep of moorland seem colourless, forbidding. Much satire —of an indifferent kind—has been wasted on the treelessness; from the bored, unobservant young Marine who wrote in 1770, 'there is not a stick so big as the pen I am writing with, on any of them',[1] to the British naval officer who, more than a hundred years later, went from Montevideo to spend Christmas at Port Stanley and disposed of the whole vegetation thus: 'There is but one tree in the entire islands, and that solitary exception attempts to grow in the governor's garden at Stanley where it is protected by a wall from the cutting south wind which ruthlessly nips off any ambitious shoot which presumes to peep over its restricted limits.'[2] The chief reason for this treelessness is the strong westerly wind. No trees can be grown without some protection to the west. Skottsberg shows an interesting photograph[3] of a hawthorn tree in Stanley (perhaps the same referred to above) growing behind a wall, showing how the wind cuts it off level with the shelter, giving its head an odd one-sided look. Also it must be remembered that it is only of late years that any attempt at forestry has been made. What the Government was prepared to spend on arboriculture may be deduced from the following: 'the Colonial Secretary of the Falklands on his return home in 1891 was requested to approach Dr. (Sir Daniel) Morris regarding plants or seeds. In the end it was decided that an amount not exceeding £10 should be spent on seeds and plants, this sum to include packing. The order was executed by Messrs. Veitch, of Chelsea, and seeds of a variety of trees,

[1] Thomas Coleman [? to Mr. Grenville]. *The Grenville Papers*, 4 vols., London, 1853, iv. 505.

[2] *Chambers's Journal*, 16 February, 1884, vol. lxi. 110.

[3] *Botanical Survey of the Falkland Islands*, *ut supra*, p. 83.

including Pines, Birches, Poplars, &c., were sent on 17th January, 1893.'[1]

There were one or two earlier attempts at forestry. Bougainville brought over wood to his colony, but it is doubtful if much attempt was made to plant young trees at Port St. Louis. The first real attempt at tree-planting seems to have been made at Port Egmont when Captain Wallis of the *Dolphin* (Byron's old ship) was at Port Famine. Under the date *Monday, 29 December, 1766* he writes :[2]

'In the meantime a considerable quantity of wood was cut and put on board the store ship to be sent to Falkland's Island ; and, as I well knew there was no wood growing there, I caused some thousands of young trees to be carefully taken up with their roots . . . and packing them in the best manner that I could, I put them also on board the store-ship with order to deliver them to the commanding officer at Port Egmont' [Macbride] 'and to sail for that place with the first fair wind. . . . Sat. Jan. 17th, the *Prince Frederick*, victualler, sailed for Falkland's Island.'

If these trees were ever planted they would have been left to die when Port Egmont was abandoned.

About 1889 Mr. Robert Blake, a Director of the Falkland Islands Company, made a determined effort to grow trees. He began with some small Austrian Pines, which grew quite well. Then, in a small depression at Hill Cove, West Falkland, he continued the experiment with the Antarctic Beech (*Fagus betuloides*), a kind of Laurel (*Laurelia serrata*), and a Barberry (*Berberis buxifolia*). They have grown well up to a certain height ; but any shoots rising above the shelter are slowly killed by the winds.

A full and most interesting account of the

[1] *Kew Bulletin of Miscellaneous Information*, No. 5, 1919, p. 212.

[2] Hawkesworth (J.), *An account of the voyages undertaken for making discoveries in the Southern Hemisphere . . . drawn up from the journals . . . kept by the . . . Commanders*, 1773, p. 385.

experiment will be found in the *Kew Bulletin* already mentioned. In a letter to Kew, dated 14 April, 1919, Mr. Blake generously offered to undertake the preparation of all the land required for any attempt at tree-planting, provided an expert man was sent to control the work.

'It is to be hoped that the Government of the Falkland Islands may find itself in a position to accept Mr. Blake's interesting offer, as the proper preparation of the ground, which is a matter of considerable expense, is of prime importance, and such an experiment should certainly be made.'[1]

It will be remembered that all the early navigators who saw the islands, but without landing, described them as being well wooded. These reports were owing to the islands being nearly covered with the most beautiful—as well as the most nutritious—grass in the world; 'the golden glory of these islands' as Moody described it in a letter to the *Guernsey Star*.[2] Patches of tussock-grass (*Poa flabellata*) look from a distance like small low groves of palm trees. From 200 to 300 shoots spring from one plant, which rises to a height of between 5 and 7 feet; the leaves are sometimes 6 feet long. They possess valuable feeding properties, being rich in protein, and are eaten eagerly by horses, cattle, and sheep. A few inches of the bases of leaves, stem, and root are sweet and, according to Clayton, 'when roasted eat like almonds'. Ross says[3] that two Americans who had wandered or deserted from their ship lived on West Falkland for fourteen months on tussock culm. The first French explorers thought it a kind of flag and called it *glayeuls*, though

[1] *Kew Bulletin, ut supra*, p. 217. Of the plantation laid out near Stanley the hard wood trees succumbed, only the conifers surviving in 1922. The Austrian and Corsican pines showed most sign of life.

[2] Fisher's *Colonial Magazine*, January-April, 1843, iii.

[3] Ross (Sir J. C.), *A voyage of Discovery and Research . . . during the years 1839–43*, London, 1847, ii. 276.

Bougainville recognized it as belonging to the *graminae*. Clayton, Penrose, and other English called it Penguin Grass, because in it the penguins made their nests, 'burrowing under ground like rabbits in their holes'. Whether by accident or design it was frequently set on fire by the early settlers, with disastrous results to the birds and seals. Sulivan seems to have been the first to draw outside attention to the plant. He spoke of it to the late Sir James Matheson, who introduced it into Stornoway. When the Ross expedition wintered at the Falkland Islands in 1842 Hooker, partly at Moody's request, drew up a report on the tussock-grass which was sent to England and read before the Royal Geographical Society in November, 1842. Sir William Hooker wrote gaily to his son of how he and Colonel Moody (father of Captain Moody, 'his Excellency the Governor') laid the matter before the Society. Joseph was considered the fortunate discoverer of the most wonderful grass that was to make the fortune of all Highland or Irish lairds who had bogs—bogs being the proper soil for the plant. 'You have no idea', continues Sir William, 'of the quantities of letters I have from strangers in all quarters, from the south coast of Kent to John o'Groat's, and from the east of Fife to the west coast of Connaught, humbly begging me, the happy father of so renowned a son, to give them but the tythe of a fibre of the root, or one seed; or in default of them a piece of a leaf!'[1]

It seems to have grown best in the Hebrides, being sown as a farm crop at Lewis—purchased by Sir James Matheson in 1844—and at Holm.[2] It was reported, in 1889, as doing well in Ireland, on drained bog at

[1] Huxley (L.), Life and Letters of Sir Joseph Dalton Hooker . . . 2 vols., London, 1918, i. 129.

[2] Scobie (J.), Growth of the Tussac Grass in the Isle of Lewis (*Journal of the Royal Agricultural Society*, x. 182–4, 1st series, 1849.)

Dunmanway.[1] But it has never prospered at Kew. To be really happy it requires a peat bog soil with the sea-spray on it. As Governor Moody says: 'Where the sea beats with the greatest violence and the spray is carried farthest, there the tussac grass thrives best on the soil it loves.'[2]

Owing to the abundance of sheep this grass has almost vanished from the East and Western Islands, though an attempt was made in 1922 to plant an area with it near Port Stanley. In some of the smaller islands—such as West Point—it still grows luxuriantly, rising to a height of six feet, or more, the long leaves hanging gracefully down. The introduction of foreign grasses on the more fertile camp may in time considerably change the aspect of the islands. Once the yellowish green of tussock-grass predominated. So recently as 1847 its proportion to cultivated land was as follows—even in the populated area of the islands:

County of Ross, township and suburbs of Stanley: 3 acres of garden, 1,200 acres planted in tussock-grass.

Township of Anson: ¼ acre of garden, 6 acres of tussock.

County of Lafone: ¼ of an acre of garden, 4,000 acres of tussock.

For the last forty years Mr. Robert Blake, the owner of Hill Cove, has directed his attention to the cultivation of food for cattle. Broad-casting proved a failure and it was found necessary to plough, harrow, and bring the land into a proper tilth before sowing. Thirteen acres have been planted with the following

[1] For further accounts of the growth of tussock-grass in England see *Journal of the Royal Agricultural Society*, 1st series, iv. 17; v. 50; xiii. 474; *Irish Farmers' Journal*, 20 May, 1846.

[2] Fisher's *Colonial Magazine*, *ut supra*.

mixture of grass seeds, the weight being given in pounds: oat-grass (96), cock's-foot (120), rough-stalked meadow (18), chicory (36), burnet (72), yarrow (12), timothy (72), alsike clover (18), late and red clover (18), white Dutch clover (18), Kentish wild white clover (24).

Small crops of cabbages and swedes are also grown at Hill Cove.

The only earnest attempt at agriculture in the past seems to have been made at the South American Missionary Society's station at Keppel Island. What that small island was able to produce will be seen by the following extract from the bailiff's report in 1877:

Notes from a report by Bishop Stirling in 1877, on Keppel Island.

Return of stock, produce, &c.:

Garden ground over 5 acres. Average yield: potatoes 30 tons; turnips (Swedish) 6 tons. Average price of potatoes sold £11 per ton. Cattle: about 500; sheep: about 2,800; horses 20. Value of dairy produce sold about £100 a year; value of bacon sold about £20 a year. The weight of each fleece averaged a little under 6 lbs; the last consignment of wool weighed about 12,000 lbs and fetched in England 10*d.* per lb.

If the cultivation of English grasses should be successful it may be that to-day's sober tints of varying greys and yellow-brown will be merged here and there into tender, vivid green, and the islands will look as they did to Sir Richard Hawkins—'greene . . . as any meddow in the spring of the yeare'.

PART IV

ZOOLOGY

BY

RUPERT VALLENTIN

PREFATORY NOTE

After working for some years at the littoral fauna and surface life of the sea on the coast of Cornwall I was anxious to compare the results obtained with those of some spot in approximately the same degree of latitude in the southern hemisphere. After some hesitation I fixed on Stanley Harbour, East Falkland Island, as the most suitable place. Here, during the summer of 1897–8, I spent five months of enjoyment, returning again between the years 1901–2. On this second visit I was able to extend my observation to the lesser known western island; though, unfortunately, the greater part of my collections made there were lost in the *Allen Gardiner*, wrecked off Cape Bougainville on her return voyage to Stanley.

My third and last visit to the islands was made in 1909 when, owing to my wife's continued ill health, we spent two years on the western island. Although we were not able to make a careful study of the fauna and flora of the north-western part of the island I extended my studies as far to the south-east as Fox Bay. It is almost impossible thoroughly to explore any place, and no one recognizes more than I do how much yet remains to be done.

Now, after my long absence from the islands, I should like to acknowledge my indebtedness to Mr. Frederick Cobb, the Director of the Falkland Islands Company in London, and Mr. W. A. Harding, the Company's Manager in Stanley, who, with Mr. Girling, Captain Thomas and all the Company's employees, helped me in every way. To Mr. Vere Packe of Stanley, Messrs. Holmested and Blake, Mr. Sydney Miller, Mr. and Mrs. Tom Goodwin of Shallow Bay, Mrs. Hansen,

Messrs. Benny of Saunders Island, and Mr. and Mrs. Buckworth, my wife and I are deeply grateful for many kindnesses received.

I am also indebted, as will be seen in the following pages, to Professor E. B. Poulton and the late Mr. Isaac Thompson for their Notes on my collections of Insecta and Copepoda.

XVII

BIRDS

As one would expect, the birds, and especially the three species of Penguins which make their headquarters on this archipelago, have from the earliest times attracted universal attention. This is hardly to be wondered at, when one considers that the avian fauna form such a prominent feature in the landscape. Unfortunately the indigenous birds are rapidly decreasing in numbers, their diminution being chiefly due to camp fires and to the establishment of rifle clubs.

Captain King, Chas. Darwin, Captain Abbott, Dr. Sharpe, and Mr. A. F. Cobb [1] are among those who have written on the birds of this region. Since then, stray notes have been published in various scientific and popular journals, the attractive Penguins always being included.

ZENAIDA AURICULATA (Des Murs), ' Violet-eared dove '.

One day early in the autumn of 1910 while my wife and I were hunting for specimens along Roy Cove creek we suddenly flushed a single bird of this species, and I shot it. On inquiry I found that probably the same bird had been seen for several days previously round the settlement and one of the men, seeing it was a stranger, fed it. I knew nothing of this till later, when I was showing the skin round for identification. According to Brabourne and Chubb's *Birds of South America* this bird has been recorded from the Straits of Magellan, and also from nearly every country on the South American continent, excluding Brazil.

[1] Cobb (Arthur F.), *Wild Life in the Falkland Islands* (*Gowans's Nature Books*, No. 26), 1910.

Mr. Charles Chubb, to whom I gave this specimen, tells me it is an occasional visitor to the Falklands, and this statement is confirmed by Dr. Wace, late of Darwin, who has also seen a stray specimen or two near that settlement.

There are two species of Grebe to be found in the ponds and pools on this archipelago, viz. *Podiceps rollandi*, Quoy & Gaim., and *P. calipareus*, Less. Of these two species *P. rollandi* is certainly the commoner, being found in all the larger ponds and pools on the West Falklands. *P. calipareus* is very rare, and according to my observations is only found on Byron Sound lagoon.

At Port North Lake there were a pair of *P. rollandi* (black-crested grebe) always to be seen during the spring and summer whenever I went there, and they eventually became so tame (or was it inquisitiveness?) that while eating my lunch at my favourite camping-ground they always paid me a visit. I have often pelted them with crusts of bread, and instead of diving to avoid an extra good shot, they would simply duck the head, or give a sudden twist of the body to avoid the missile. Late in the season, 21st February, the parents turned up with two young ones. These latter were covered with a fawn-coloured down, with darker stripes running longitudinally over the whole body. They were most attractive little things, so quick and lively, and were always to be seen with their parents till the end of the following May when all vanished.

Later, when living at Shallow Bay I saw several other broods, but as they were never more than two in number I think one may safely assume that two eggs form the usual complement for each nest. I hunted in vain for the nests of both species, but was never successful in finding either. However, owing to the assistance of kind friends, I have several eggs of this species in my possession. An individual egg is oval in

outline, ivory white in colour: the shell smooth, the average length of four specimens being from 41 to 53 mm. and the breadth 32–4 mm.

The second species, *P. calipareus* (white grebe), Less., is, as already stated, very rare. I have only met with it on Byron Sound Lagoon where one pair were usually to be seen swimming with the preceding species. A single egg in my possession was very kindly given me by Mrs. Hansen of Carcass Island, who informed me that a single nest of this species with one egg was once found on her island. This sole egg is ivory white in colour and quite smooth, but it is more pointed and shorter than the preceding species, being 47 mm. long and 32 mm. in diameter.

No doubt both species breed in the tall rushes which line the greater part of Byron Sound Lagoon, but, not having a boat, I was unable to search the high reeds very closely, although I did manage to explore a good deal of this growth clad in my fishing-stockings.

Aptenodytes patagonica (Miller), 'King Penguin'.

Many years ago this attractive bird was by no means scarce on this archipelago. About 1867 a man named Lecomte stayed in Stanley and he forwarded to the Zoological Gardens, Regent's Park, various specimens as opportunity offered.

In the *Proceedings of the Zoological Society*[1] it is recorded that twenty King Penguins were found near Volunteer Lagoon, East Falkland, amongst a large rookery of Gentoo Penguins. About this time, Lecomte sailed for England by the packet *Fawn*, joining the mail-steamer at Montevideo. He had

[1] Sclater (P. L.), *Proceedings of the Zoological Society of London*, 1868, p. 527. See also Mr. Sclater's *Catalogue of the Birds of the Falkland Islands* in the same publication, 1860, p. 382, and 1861, February 12th.

a veritable Noah's Ark with him: Sea-lions, two Foxes, one Gentoo Penguin, four Rockie Penguins, six Kelp Geese, and a variety of smaller birds, including Sea-hens, Military Starlings and Finches. Finally, Lecomte arrived in London with one Fox and a few other survivors.

There is a legend on the West Island, and I trust it is only a story, that the last rookery of this species was boiled down by a shepherd living near Dunnose Head, the oil obtained from their bodies being used to make the roof of his house water-proof.

So far as I have been able to gather, not another specimen of King Penguin has been recorded on the Falklands since 1898. I never could find out what became of this specimen.

PYGOSCELIS TAENIATA (Forster), 'Gentoo Penguin' or 'Gentoo'.

Although almost as interesting as the next species, these birds are not nearly as numerous; but an individual bird is larger and certainly more powerful, standing as it does nearly thirty inches in height. Unlike the 'Rockhopper' the 'Gentoo' does not migrate, but remains on, or adjacent to, the islands during the whole year. This statement is in direct opposition to Captain C. Abbott, who writes concerning its movements as follows:[1] 'when the young birds are old enough they all go to sea, and only occasional stragglers are found on the coast at any other time of year.'

Near where I wintered on the west island there was a large rookery of this species and some were always present whenever I looked for them. Unlike the 'Rockie' the 'Gentoo' prefers an open space for nesting, usually on some slightly sloping ground and

[1] Abbott (C. C.), *The Penguins of the Falkland Islands* (*The Ibis*, vol. ii, 1860, p. 337).

facing the north, but there must be a never-failing supply of fresh-water always available.

Sometimes the rookeries are near the sea-shore, but occasionally one is found a mile or more from the sea, a well-defined path over the camp or moor marking the track of these birds to and from the sea.

The nest, usually a cumbrous affair, is made of the first materials which come to hand. On the islands tussock-grass is used; while on the mainland twigs of the ever-present *Empetrum rubrum* are twisted from the adjacent low bushes and roughly piled together, the bark being usually removed first. This heap is soon pressed down by the weight of the sitting bird, and becomes caked together by mud and excreta round the rookery.

Two eggs are usually laid early in November. They are chalky white in colour, smooth, usually oval in outline and invariably very dirty. They measure from 67 to 72 mm. in length, and from 58 to 62 mm. in breadth. Two eggs of this species in my possession are quite unique. One was taken from a rookery near Sparrow Cove, East Falkland, the other from a rookery at the north-west corner of the West Falklands. Both eggs are nearly spherical and measure 55 mm. × 53 mm., and 67 × 60 mm.

Incubation lasts about forty days, both sexes taking their share in hatching. The young are of a very dark grey colour when first hatched but gradually after a series of moults the adult plumage is assumed. The mother instinct amongst these birds is most striking. Although only two eggs are laid, yet a 'Gentoo' will attempt to fight to the death in defence of any chicks she may chance to foster. I have placed six fledglings in a 'Gentoo's' nest taken from those in the immediate neighbourhood, and then retired a little distance. The bird to whom this nest belonged immediately returned and tried to

cover all the chicks, and stoutly fought for their defence when I tried with a stick to remove any of the young birds. On one occasion early in December I was visiting a rookery of this species as the birds were hatching. The Skua gulls were as usual about in numbers and as I approached the rookery the 'Gentoos' retreated, and the gulls at once attacked the unprotected youngsters. It so happened that in one nest a chick was being hatched out, and one of the parent birds lingered possibly to view the interesting event. I just managed to expose a plate as one of the legs of the chick were free, and in a moment the egg shell divided and the youngster was exposed to the air. But its existence was very brief, for down swooped a Skua gull, and the chick vanished down the oesophagus of the bird like an oyster. I at once transferred my gaze to the penguin, who certainly looked amazed at this proceeding, and I wondered at the time which of us was the more astonished.

By the following February the young birds begin to assume the plumage and markings of the adult, and as the youngsters increase in size the parents' devotion seems to increase rather than diminish.

A week or so later, i. e. about the middle of March, the young 'Gentoos' are able to take care of themselves and the parents moult. During this time they do not go to sea, but remain on shore and sleep, and the soundness with which they can slumber is astonishing. Once I found a number of this species fast asleep on the sea-shore at 9.30 a.m. and I walked round and examined them and they never moved the whole time. On paying them a return visit at 4 p.m. they seemed to be in exactly the same position as when I found them.

Catarrhactes chrysocome (Gould), 'Rockhopper' penguins.

This species is unquestionably the most amusing

A GENTOO PENGUIN ROOKERY

JACKASS PENGUINS

at Hope Harbour, West Falkland

bird in the whole archipelago. Had Charles Kingsley ever visited these regions, I feel convinced he would have devoted at least one volume to these birds alone. There is a remark in his book *The Water Babies* which, with a single alteration, would sum up in one sentence the movements and habits of these quaint birds. This passage runs as follows: 'all the ingenious men, and all the scientific men, and all the fanciful men in the world, with all the old German bogey-painters into the bargain, could never invent, if their wits were boiled into one, anything so curious, and so ridiculous as' a Rockhopper Penguin. To spend a whole day in a Penguin rookery, especially in the pairing season, is quite an event in one's life. An individual, after prospecting round, gravely hops to the object of his affections and, if his advances are accepted, both hop off. Always towards the end of October one finds numberless pairs of 'Rockies' hidden away in all sorts of places adjacent to the rookery. During this time the noise made by those birds which have already paired and started nest-building is deafening, and this row is kept up throughout the whole nesting season. The nests are simply a rough depression in the guano-soaked ground, with perhaps a few twigs and bents of grass laid in; a rough apology for a nest is hastily constructed, and then the egg-laying begins. On visiting a vast rookery on 30th October I found many couples nest-building but only two eggs could be found. Twenty-four hours later a dozen eggs were secured, and the following day hundreds of eggs could have been gathered.

The inhabitants of these islands usually fix certain days on which to collect these eggs for culinary use, and being always mindful of home ties usually fix Lord Mayor's Day—9th November—for a picnic to a rookery; and should a further supply be needed another expedition is made a few days later, for, in

a large rookery, the supply is, to all intents and purposes, almost inexhaustible.

As already stated two eggs are laid, and should these be taken or destroyed they are quickly replaced, for the birds will continue laying for some time. I have in my collection a very instructive series of eggs of this species, and they vary so much both in size and shape that even an expert would be puzzled as to the origin of some of them. The smallest egg in my possession measures 42 × 33 mm.; the largest 74 × 48 mm., and between these two measurements the remaining eggs are included.

Every 'Rockie' rookery is usually placed near the sea, a well-defined gangway or path being always present; and along it there is always a constant stream of birds going in both directions. The landing-place is usually on some large boulder in a small inlet in the cliffs, and the birds, watching for a smooth interval between two waves, make a bolt for the shore and scramble up the rocky slope out of harm's way as quickly as possible. Occasionally, however, there are some birds who do not move quickly enough, and these are swept back into the sea by the succeeding wave or else banged against the hard rocks bounding the landing-place. When once beyond the reach of the waves, these birds arrange their feathers and make themselves spruce before continuing their journey home.

At Keppel Island there is a large 'Rockie' rookery in one place of which the path or track leads almost up the vertical side of the cliff, and the birds experience great difficulty in clambering up to their homes. Doubtless ages ago, the track was much easier, but the cliffs have weathered away, and landslips taken place, and the birds, instead of making a slight detour, which could be easily done, persist in keeping to the road made by their ancestors. Here the rocks are

deeply scratched by the feet of the birds as they scramble up, and in one place the cliff is so steep that small holes have been made in the hard gneiss rock by the beaks of the penguins. In this case the return to the sea is easily accomplished, for the birds almost slide down, and owing to the thickness of their feathers, and the layer of fat under the skin, they resemble an india-rubber ball, for they can bounce about from rock to rock with seeming impunity.

To give some idea of the great amount of oil which has been obtained from these birds in former times, it is recorded in the *Proceedings of the Zoological Society* for 1868 [1] that there were at one time four vessels engaged in the penguin and seal fishery round this archipelago, and they had 50,700 gallons of penguin oil on board. Each penguin gives an eighth of a gallon of oil, so the destruction of these birds must have been enormous.

At the end of the nesting season, March, all the birds moult, the feathers coming off in patches, which gives them a very untidy appearance; and they remain on shore till the process is ended. At these times it is striking to notice the clouds of feathers blown to leeward from a rookery during a fresh breeze. The feathers are shed from the head downwards. Like others of the same genus they do not voluntarily take to the water at these times; and one of my amusements was to drive a mob into the sea, a process they objected to most strongly.

Spheniscus magellanicus (Forst.), 'Jackass Penguin'.

This species seems to be increasing in numbers, making its burrows in the sand hills and also in the tussock growths on the many islands scattered round the East and West Falklands.

[1] P. 528, note.

Although I have spent many hours observing this species, I have never been able to satisfy myself how the burrows are made. Round Stanley and elsewhere where these birds are subject to molestation, the burrows are invariably very deep. At Hooker Point near Stanley these holes are at least ten feet or more in depth, so that when the chicks are hatched the old birds can be heard braying in the depths below where one is standing. Usually, however, these burrows are very shallow, and in most instances are only of sufficient depth to shelter the sitting bird from the elements. Those who have paid attention to the habits of this species seem inclined to the idea that both bill and claws are employed and this seems to me the most probable suggestion, but I have never yet met with any one who has actually seen these birds digging. Besides, traces of both bill and claws should be visible on the sides of the burrow, and traces of either I have never yet detected.

This species migrates, spending only the spring and summer at the Falklands. They appear to arrive with unfailing regularity about the second week in September, and depart for more congenial climes towards the close of the following March.

This species appears to bray more or less all the time it is on the islands except during the moulting season, when it is silent. When the young begin to mature the parents bray incessantly from sunset to sunrise. On one occasion when anchored in a small sheltered cove on the West, after a very rough day at sea early one December, my rest was sadly broken by the braying of a number of these birds whose burrows lined the shores. The opera started at sundown and it lasted till sunrise. As to whether or not both sexes join in, opinions are again divided. The ' bray ' is not continuous but it always reminded me of a deck-hand working a hand fog-hooter on

a sailing-vessel. The so-called 'song' can best be described as three staccato brays, followed by a long one.

A shepherd once living in a small hut on Passage Island, West Falklands, found that a pair of these birds had taken up their abode under the floor of his dwelling. All went well till the young were hatched; then the season of light opera began. This braying got such a nuisance, for there were only the floor-boards between himself and the birds, that he could stand it no longer, so the 'company' were promptly evicted and comparative peace once more enjoyed. On many occasions I have amused myself turning these birds out of their burrows when moulting, and, when a number of evicted birds were assembled, driven the lot into the sea.

The nests are sometimes lined with grass bents, but in most instances the eggs, two in number, are laid on the ground at the end of the burrow. A favourite place on those islands covered with tussock-grass is at the root of a large clump. Here a slight depression is sufficient for the nest, while the densely matted grass above forms ample protection from the elements. The eggs, two in number, are usually laid during the last week in October. Once, on the 30th of that month, I found several burrows with only one egg present, but on re-visiting this spot two days later each nest contained two eggs. I have found new-laid eggs as late as in the middle of November. In shape they vary from broadly oval to spheroidal in outline. Dimensions of eggs: 74 to 64 mm. in length, and 56 to 58 mm. in diameter.

MACRONECTES GIGANTEUS (Gmel.), 'Stinker'.

This is, I believe, the correct name of a frequent visitor to the harbours and coves on this archipelago. The birds were always shy and only came in shore

when there was bad weather outside. An occasional stray specimen would sometimes visit Roy Cove, where I spent one winter, when the whalers brought in a dead whale. These birds would fly for hours round the dead body, but never, so far as I could discover, would they settle and make a meal, although Scoresby gulls set to work the moment they got the chance. I was informed that this species nests only in one place in this archipelago, viz. on New Island, and it is by no means abundant there. I have a single egg in my possession kindly given me by Mrs. Hansen of Carcass Island when I paid my brief visit to her island home during November, 1910. This egg is oval in outline, white in colour and covered at its rounded end with minute granulations. It measures 102 mm. in length and 67 mm. in breadth. In Captain Abbott's time, between 1858 and 1861, this species was common. He records it as[1] 'breeding on many of the adjacent islets', but since then it has not been so abundant.

Once I managed to shoot a specimen as it was flying over a low spit of land jutting out into the sea. In the stomach I found the partially digested remains of a finch, and a quantity of fibrous material.

On the 29th September, 1910, after a very wild night, one of the men on the station brought me a small bird which he had picked up on his way to the house. This bird I believe to be *Priocella glacialoides* (Smith). It was a female. The stomach was quite empty of all food, so I fear the poor bird died of exhaustion.

This is the only specimen of this petrel I ever saw, but I believe it nests in holes in the ground on some of the remote islands, being known locally as the 'fire bird'. I have two of the eggs in my possession,

[1] Abbott (C. C.), *Notes on the Birds of the Falkland Islands* (*The Ibis*, 1861, iii, pp. 149–67.)

they were given to me. In shape they are oval in outline, smooth and ivory white in colour, each egg measuring 47 to 49 mm. in length by 36 to 35 mm. in diameter.

DAPTION CAPENSE, (Linn.), 'Cape pigeon'.

Although I have never either seen or even heard of a bird of this species having been met with here I think it may be safely included in my list. Once when out on a whaler we had the good fortune to secure a fine whale and while making it fast to the side of the steamer some dozens of these birds suddenly appeared round the ship. Certainly five minutes before we killed this huge cetacean none was to be seen, they seemed to spring from space. They flew round and round us and at times settled on the sea eagerly devouring the undigested remains of *Munida gregarius*, Fabr. (*vide* Mr. Stebbings' paper),[1]—known to the whalers as 'Whale-food'—which were thrown up by the whale as it was dying. When this cetacean was firmly secured, we steamed for the nearest cove some ten miles away, and these birds left us and I never saw any more during my stay. I have often seen this species during my deep sea voyages thousands of miles from land, and it is well known they will follow ships for days for the waste food thrown overboard.

DIOMEDEA MELANOPHRYS (Boie), 'Molly' or 'Molly-mauk'.

This species continues to thrive on these islands in spite of the raids which are made every spring on its eggs, for which there is always a steady demand. There is a rookery of considerable size on the cliffs along the northern boundary of Saunders Island.

[1] 'Crustacea from the Falkland Islands', *Proceedings of the Zoological Society*, Part II, 1914, p. 346.

These birds are migratory, leaving the islands every March and returning for breeding purposes early the following October. The nest is always made of mud, with which tussock-grass is sometimes intermingled; in most instances however, and especially when the nests are made amid those of the 'Rockie' penguins, it is simply composed of the filth picked up in the rookery and plastered by the bill on the remains of the old nest and this soon becomes hard and dry owing to the atmosphere. It is striking to notice the contrast on these occasions between this species and the 'Rockie' penguin. The 'Mollymauks' in spite of their dirty occupation keep themselves spotless, whereas the 'Rockies' are usually in a state of filth. One frequently finds a nest of a 'Mollymauk' with several rings which marks where the structure has been built on during successive seasons. This fact seems to indicate that the species pairs for life. The nests are all of the same shape, being cylindrical in outline, averaging about 16 inches in diameter at the top, a slight concavity about three inches in depth occupying the centre. These nests vary in height according to the slope of the ground on which they are placed, for this species must have ample space to stretch its wings before launching into the air. This fact is well illustrated by the frequency with which one finds during April the young ones dead or in a moribund condition in some swamp or valley far inland. These unfortunate individuals on leaving the nest have, owing to the state of the weather, or fatigue, landed in a swamp or valley; and owing to the level nature of the ground are quite unable to fly again. I well remember my astonishment on first finding one of these young birds in a swamp some dozen miles or so inland. I had recently fired at and wounded a teal, and on reloading my gun walked to the spot where I had marked it down. Suddenly up rose the teal from the

rushes, and at the same moment there was a tremendous commotion near by. I bagged the teal and then proceeded cautiously to investigate the source of this disturbance; great was my astonishment to find a young 'Mollymauk' floundering about in the mire.

This species lays but one egg early in October and if this is either taken or destroyed it is never replaced, but the pair remain about the nest till the following April when they migrate. There is an interesting feature about the incubating habits which was, I believe, first recorded by the late Professor H. N. Moseley in his fascinating 'Notes'[1], which is as follows: 'The egg is held in a sort of pouch whilst the bird is incubating. Thus the bird has to be driven right off the nest before it will drop the egg out of its pouch. . .' But this 'pouch' I think would be better described as a fold of the skin between the legs in which the egg is retained, and as the bird assumes an upright position the egg gradually becomes free. In shape the egg of this species is elongate, oval in outline, smooth, and dull white in colour, with usually a sprinkling of red spots at the larger end. These red spots vary not only in size but also in distribution, being occasionally distributed all over the egg. I have in my collection nineteen eggs of this species from the following places: Six eggs from Beauchêne Island, eight from Saunders Island, and five eggs from West Point Island. All these were selected either for their shape, or markings, for I wished to possess as large a variety as possible.

In two of the eggs from Beauchêne Island the red specks are not restricted to the larger end, but there are also splashes of colour scattered irregularly over the whole surface, some measuring 2 cm. in length. In one of these eggs these large blobs occur at both

[1] Moseley (H. N.), *Notes by a Naturalist on H.M.S.* Challenger, 2nd ed., 1892, p. 112.

ends. In the remaining four eggs from this island the red specks are exceedingly minute at the round end; and in two cases are hardly noticeable. The eight from Saunders Island were collected by myself. In the case of six of these, the red blotches are scattered broadcast over the surface of each egg, while the surfaces of the remaining two are only marked slightly at the rounded end.

Of the five remaining eggs from West Point Island two are in their 'pristine beauty' i. e. covered with dirt—their usual state; one egg has a big almost circular smear of red on its rounded end, while the remainder is blotched with patches of the same colour. The fourth egg has the normal colouring on the rounded end, but it is small in size, being probably laid by a young bird. The last egg is quite abnormal both in shape and marking. It measures 120 mm. by 63 mm., and nearly one third of its rounded end is smeared and speckled with red. A normal egg measures 110 mm. by 67 mm., and weighs when fresh about three-quarters of a pound. When cooked, for instance plain boiled, it forms a delicious meal, and I have often made my breakfast off one. I well remember, years ago, a small boy friend created quite a disturbance at the breakfast table because he was denied a second 'Molly's' egg for his morning meal. No wonder sealers made West Point Island and Saunders Island their homes when such dainties could be procured in abundance every spring, the first two weeks in October, when laying begins. Incubation lasts about sixty days. The young when first hatched are very pretty, being covered with down of a light grey colour. About April the parents abandon their young, and the migrating instinct soon compels the young birds to follow. Many perish miserably in the camp, but others under more favourable conditions survive. There is one striking feature about the young

of this species which seems to me very singular. That terrible robber, the Skua gull (*Megalestris antarctica*) which always abounds in and round a Penguin rookery, ready to devour any young penguin left unprotected even for an instant, never attacks a mollymauk fledgling. Possibly there may be something unpalatable about the young of this species: certainly it is not because of their want of nourishment, for they are always as fat as possible even in the youngest stages when they are quite helpless, and their parents may leave them for considerable periods quite unprotected. Be this as it may, I have never seen these fledglings molested in any way, and I have never found their remains either adjacent to the nests or near a Penguin rookery.

STERNA HIRUNDINACEA (Less.), ' Swallow-tail gull '.

A very attractive bird, usually to be found on the West Falklands near a Gull rookery. It is very shy, and flies round the head of a visitor a good many yards away, uttering its harsh note which resembles that of the English tern.

I have two eggs of this species taken near Dunnose Head, West Falkland, on 21st December. As already stated two eggs only were secured from this nest, and although they were both laid by the same bird yet they vary considerably in outline, one egg being distinctly pointed, and measuring 56 mm. in length by 37 mm. in breadth. The other egg is more rounded and measures 52 mm. long and 38 mm. in diameter. The ground colour varies considerably, but the prevailing hue is green, and the whole surface covered with blotches and spots of varying size. This species is migratory, leaving the islands every March and returning early the following October.

Larus glaucodes (Meyen), 'Pink-bellied gull'.

I have seen this species occasionally on the West Falklands and in the neighbourhood of Penguin rookeries, but I have never handled one. Two eggs only are, I believe, deposited in each nest. Of the four specimens in my possession two eggs came from the Jason Islands. These islands are but seldom visited, the sea being filled with hidden dangers, and have never been properly surveyed. The other pair of eggs came from Dunnose Head and were collected by my friend Mr. Kenneth Morrison on 21st December, the same day as the preceding species.

These eggs are very like those of the swallow-tail gull. The brown blotches are numerous but in one egg they are almost wanting. They vary in length from 42 mm. to 48 mm., but in diameter they are very uniform, measuring 35–37 mm.

Larus dominicanus (Licht.), 'Gull or Sea-Gull'.

This species is present all the year round and is fairly distributed over the whole archipelago.

Like others of the same genus this species nests rather late in the season, the eggs being laid about 12th December. Numbers of eggs are used for cooking, and although they are rather strong in flavour when eaten plainly boiled, yet the rich yolk imparts an agreeable tint to cakes, and when used in this way the unpleasant taste is lost.

This species builds in vast rookeries, and the nests are usually packed closely together as if for mutual protection from that ever-present robber the Skua gull. Unless disturbed, when the birds take to their wings, they usually walk about the rookery, and a constant stream of birds is passing to and from the sea, which is always near at hand. There were two rookeries within easy walking distance of Shallow Bay

house where we lived for six months, and, as both were easy of access, I kept them under observation during the breeding season. It was a beautiful sight to see hundreds of these birds take to the wing and fill the air with their cries as one drew near, and then to watch them slowly settle down as one retired.

The nests are very simply made. A slight depression in the ground, with a few bents of grass for a lining, is quickly put together and then the eggs are laid. Three eggs is the invariable number laid by each, and if these are taken or destroyed they are quickly replaced, but if these birds are frequently disturbed they will cease laying and abandon that locality.

One nearly always finds in the immediate neighbourhood of a sea-gull's rookery quantities of the common groundsel, *Senecio vulgaris*, indeed round one rookery about four miles due east of Shallow Bay house this weed formed a carpet in and round this nesting-place. Nowhere else have I seen it so abundant. For some time this fact puzzled me and then it occurred to me that the seeds were brought thither adhering to the feathers of the gulls.

One invariably finds in or near the nests of this species various species of littoral molluscs. Once I was astonished to find several specimens of *Chiton setiger*. How did the gulls manage to dislodge them from the rocks?

One of the most striking features about the eggs is their great variety of colouring; not only is the ground colour more varied but the markings are also dissimilar. In general appearance the eggs of this species closely resemble those of *L. marinus*. They are oval in outline generally, the ground colour usually greyish, but this is subject to variation. The brown spots or splashes scattered uniformly over each egg vary considerably, at times being almost absent. One

egg in my possession is light grey, with a few light specks of brown scattered over it. They measure from 72 to 78 mm. in length, and from 53 to 48 mm. across.

The young when first hatched need all the protection they can get from the Skua gulls, which always hang round a sea-gull rookery. An adult gull can hold its own against a Skua gull in a single combat, but usually two or more Skuas will attack a gull together, and then the latter suffers. It is quite a common occurrence later in the season to find several Skua gulls tearing a young sea-gull to pieces outside a rookery. The youngster, wishing to see the world, runs off the nest, and once it gets away from the rookery the Skua gulls soon devour it. It is a curious circumstance, but I have noticed it repeatedly, that when once a young gull gets outside the zone of the rookery all the other birds seem to ignore it. Three or four Skua gulls may be tearing it to pieces, but the other gulls fly past and apparently take no notice; but should a Skua fly over a rookery then all the gulls combine forces and attack the intruder.

In some places these common gulls are often rightly accused of attacking sheep and lambs during Christmas time. During the lambing season I have frequently seen this species working backwards and forwards over the vast enclosures on the look out for dead and dying lambs. Many shepherds destroy the eggs systematically, and I think they are right in doing so.

There are always a number of gulls hanging round every settlement, being especially numerous near the killing-sheds where the useless sheep are killed every winter for their hides and tallow, the refuse being thrown away. Here at such times gulls, hawks, and turkey-buzzards abound, and towards sunset the gulls circling round in the sky form a delightful feature. When this supply is exhausted mussels are readily attacked. These gulls detach them from the rocks

and flying high up, drop them, and so a good meal can be easily obtained.

LARUS SCORESBYI (Traill), 'Dolphin Red-legged Gull'.

Although this species is uniformly distributed over the islands, it is by no means common and in spite of all my efforts I only once found its nesting-place. This was located along the northern edge of a Gull (*L. dominicanus*) rookery and there they herded together, there being exactly thirty-three nests present. These nests were more elaborate than those of their neighbours, being built of *Empetrum* twigs picked from the adjacent bushes as a foundation, and on this bents of grass were placed in abundance, the whole forming a compact mass by the weight of the sitting bird. Three eggs are the usual complement, and these are usually laid between the second and third week in December. They resemble the preceding species in every detail, but they are uniformly smaller in size, measuring 60 mm. by 45 mm. This species is in my opinion one of the most attractive birds. It is so gentle, having none of the bullying, plundering habits of others of the same species. Indeed I have often almost induced individuals to take smashed mussels and other dainties from my hand when collecting along the shores, while other gulls would not approach within thirty yards or so. I have no doubt that this species nests with *L. dominicanus* for protection from the Skuas, but in spite of this not a single chick ever reached maturity. Almost as fast as the eggs were laid the Skuas had them: there were a few exceptions, but long before they were able to take care of themselves they were also doomed.

CATHARACTA ANTARCTICA (Less.), 'Sea-hen', 'Skua', or 'Skua Gull'.

Although a very powerful bird it is in reality a great

coward except during the nesting-season, when it will boldly attack either man or dog. This species is a migrant, and usually arrives during the first week in October, and leaves about the middle of the following April. Where they pass the winter I do not know, but it cannot be very far to the northward of this archipelago, seeing that Barrow [1] states that the Skua gulls remain on Tristan da Cunha all the year.

These birds lay in small rookeries, which are usually in the neighbourhood of a sea-gull, penguin, or shag rookery, whence a plentiful supply of food in the shape of eggs, young and maimed birds, can always be obtained. The nests are scattered, and usually placed on rising ground, whence the birds can spring with ease into the air. These nests are easily constructed. A slight hole is first scratched in the ground, and this is lined with bents of grass and in it three eggs are usually laid, but often two only are present. These eggs are deposited about the middle of December and the chicks hatch out the end of the following January.

It is a comparatively easy matter to find the nest of this species ; for the moment any one appears near their haunts, he is immediately attacked by the birds in rapid succession. Dogs are very much afraid of them and once, when out with a shepherd, one of his dogs seemed instinctively to know when a Skua gull was about to make a dash for him, for he would throw himself on his back ready for the onslaught, and so the bird would never get a chance.

The nearer one gets to the nests the more persistent are the attacks, a series of swoops, and it is only by flourishing a stick or whip round one's head that a severe blow can be avoided. Once, when taking photographs during an exceptionally fine day, I was

[1] Barrow (K. M.), *Three years in Tristan da Cunha*, 1910.

walking towards some Skua gulls' nests while several of the birds were repeatedly swooping down on me. Not having my whip I inverted my camera, holding the tripod legs well above my head. Fortunately for me I did this, for a few moments later a Skua gull almost impaled itself on one of the legs of the stand.

Their usual method of attack, as one draws near to a rookery of this species, is to make a bee-line for the visitor's eyes, till within ten yards or so, when the bird rises over, wheels, and attacks again at the rear. It is always these rear attacks which are to be guarded against, for then the bird so frequently 'gets in' and a severe blow is the result. A blow from one of this species is rather a serious matter, and many are the tales told on these islands of people who have been knocked down and even stunned by a Skua gull.

I have in my collection twenty-two eggs of this species collected at various places on this archipelago. In outline they are oval or elliptical, the ground colour being greyish in most instances, but sometimes it is olive brown. The majority of these eggs are sprinkled with spots and blotches of brown, which is often collected at the rounded end. In the case of one egg from Whaler Bay these blotches of dark brown are very large, the biggest measuring 2 cm. across. I was informed by a very observant shepherd that on Carcass Island there was a race of these birds which invariably laid an egg quite different in hue from those elsewhere, so I wrote to Mrs. Hansen, and she very kindly sent me a specimen. This single egg is oval in outline and pale bluish white in colour, with a few brown spots scattered over the entire surface. Once, near Port Egmont, I found a single fresh egg on Christmas Day, 1910, very similar in colouring to the preceding specimen. I flushed the bird from the nest, so there is no doubt about its identity. The ground colour is darker than in the Carcass Island

specimen, and the underlying markings are fairly distinct, being of the usual red colour.

The eggs are large, measuring 73 mm. in length by 51–52 mm. in diameter. They vary but little in size.

Hæmatopus leucopus (Garnot), 'Curlew', 'Black and White Curlew'.

Both these species and the next are fairly common along the shores of the whole archipelago. At Shallow Bay the shrill piping note of these birds was usually the first bird call to be heard at early dawn during spring time.

The nests of this and the following species are both to be found in a little depression not far above high-water mark along the sea-shore. This so-called 'nest' is simply a depression lined with a few pieces of sea-weed which are so dry that lichens are often found on them. Two eggs are laid early in November, and once I found a nest with two fresh eggs therein as late as 20th December.

I have nineteen eggs of this species and they agree in outline with the next species, but they can at once be distinguished from them by the darker ground colour; besides, the dark brown blotches and spots are liberally and uniformly distributed over the whole surface. They measure 59–63 mm. in length by 42–43 mm. in width.

Hæmatopus quoyi, *nom. nov. pro ater* (Sharp), 'Black Curlew'.

Certainly this species is more numerous than the last-named in the northward corner of the West Falklands. The uniform sombre colour of both birds and the red bill and legs make it a prominent object along the sea-shore. I have often watched with wonder

both species feeding on *Patella ænea* during ebb tide, being particularly struck with the apparent ease and dexterity with which they can dislodge and devour these molluscs. How is this feat accomplished? Newton, in his *Dictionary of Birds*, pp. 682–3, says: 'It is commonly supposed to be capable of prising limpets from their rock, and of opening the shells of mussels; but, though undoubtedly it feeds on both, further evidence as to the way in which it procures them is desirable. Mr. Harting informs us that the bird seems to lay its head sideways on the ground, and then, grasping the limpet's shell close to the rock between the mandibles, use them as scissor-blades to cut off the mollusk from its sticking place.' As I have spent many happy hours watching this species feeding on the rocks in the many creeks and coves on these islands I now give the results of my observations.

Having found a limpet not quite adhering, the bird places its bill between the edge of the shell and the rock, and with a sudden twist the mollusc is detached usually in an inverted position, and in another instant it is devoured. Indeed the series of movements are so rapid that it is most difficult to follow them, either with the naked eye or assisted by a pair of prismatic binoculars. There is one point absolutely certain. The birds only select for food those limpets of moderate dimensions, viz. not exceeding 45 mm. across. Any specimens larger than this are invariably passed over, the bird wisely realizing the limit of its strength. In conclusion, I may add I have never seen this species attack mussels, which teem in the estuaries. How such a bird could open one of those bivalves I cannot conceive.

The habits of these birds during the mating season are most amusing. While riding along the sea-shore (for all collecting has to be done on horseback) one can easily distinguish a pair some distance off

during this season, for they keep together (especially if a rookery of Sea-hens is near), both for mutual protection and also for the guardianship of the nest. On near approach, first one bird and then the other, for both appear to take part in incubation, slowly walks off; but the eggs are most difficult to find, for they are almost invariably deposited amid stones, and bits of sea-weed of the same hue. I found it the best plan to ride direct to the spot where I had first seen the birds, then dismount and hobble my horse, and sit down. Soon one bird, then the other would return; and, walking round me, would commence to utter low scolding notes, moving the head up and down all the while. A little later one of the birds would sit on the nest again, and so the eggs were easily found. Although one would naturally imagine the long red bill would make the bird easily visible; yet on moving a few yards away I experienced some difficulty in finding the sitting bird again, the dried stems of *Macrocystis* effectually harmonizing with the colour of its plumage.

The eggs have the ground colour considerably lighter than the preceding species, and the brown markings are more inclined to streaks; in one instance only are they circular in outline. They measure from 60 to 68 mm. in length and from 42 to 45 mm. in diameter.

Charadrius Falklandicus (Lath.), 'Plover'.

A charming bird and one of the earliest immigrants. I well remember my feelings of joy on hearing the call of several of this species on the evening of 29th August, 1910, as I was riding homeward over the camp. Now, I thought, spring will soon be here. A few days later I met with numbers in the camp. This species is quite common on the uplands, where it can obtain

shelter under the long white grass, or overhanging *Empetrum* bushes.

The eggs are difficult to discover, being nearly the colour of the ground. The nest is simply a slight depression in the ground and sparingly lined with lichen. Two eggs are usually laid. I have found them as early as 16th October and so late as 17th December. I am inclined to the idea that two or more broods are usually reared by each pair of birds.

The ground colouring of all these eggs is distinctly buff, black blotches and spots being scattered over the entire surface. They measure from 46 to 50 mm. in length and from 33 to 35 mm. in diameter. I have eleven eggs of this species.

GALLINAGO PARAGUAIÆ (Vieill.), 'Snipe'.

Like the preceding species it is a migrant, arriving early in the spring before the snow is off the ground. Once on the 2nd September while examining the contents of a certain marsh pool on some high land in the west island, I found a nest of this species most skilfully hidden away under a tuft of long white grass. Without a doubt I should have failed to see it had not the sitting bird suddenly started away and limping off tried to draw me away. This nest was simply constructed of bents of grass woven together, and in it two eggs were found, this being the usual number. I have eight eggs in my collection. They are all very large, considering the size of the bird, measuring from 44–6 mm. in length and from 28 to 32 mm. across. They are pear-shaped in outline, of a distinct greenish hue, with blotches of brown scattered over the surface; most of these, however, are at the broad end.

Owing to the marshy nature of the land this species is far more abundant on the East Falklands than on its western neighbour: on Lively Island quite big

bags of snipe have been made from time to time. In the early days of this colony these birds abounded on the whole archipelago ; but of recent years they have greatly decreased in numbers owing to the abundance of domestic cats which have taken to a wild existence.

Nycticorax Tayazu-guira (Vieill.), ' Quawk '.

During my last visit I was able to study the habits of this species rather closely, there being a large rookery in the rushes of Byron Sound lagoon. Although universally distributed throughout this archipelago, this species cannot be said to abound ; for, owing to its solitary habits when in quest of food, a few birds cover a large area, never being seen in numbers except near their breeding-place. I had access to three rookeries of this species, but never was I able to get a photograph of either nests or birds. In two cases the nests were built amid a clump of Veronica bushes ; but here the birds had trampled down and made a platform of the boughs and then constructed their nest of twigs of the same shrub. In another instance a rookery was placed amid the high rushes in Byron Sound lagoon, and it was here that my scientific studies nearly ended. I rode over from Shallow Bay early one December to this lagoon in quest of this rookery, and also to do some collecting in the pool. Having located the rookery, the next thing to be done was to reach the nests, as the water was fairly deep. Removing my gaiters and boots, and turning up my riding breeches as high as possible, I gaily walked into the water and stepped on to the massed bed of rushes. After advancing some twelve yards or so from the shore I saw the desired nests a few yards ahead of me, so I pressed on, moving as quickly as possible over this undulating quaking growth, for I realized that if I should go through I could never expect to get out. Hastily gathering a few eggs I beat a speedy retreat,

and decided not to repeat so risky an experiment. In this instance, all the nests were made entirely of reeds, and built up some eighteen inches above the water, the whole mass being some twenty to twenty-four inches in diameter. In the centre of this construction, in a slight depression, three eggs were invariably laid, and considering the size of the hen they were comparatively small. Both sexes take part in covering the eggs, and I should think that at the time of my visit at least half of the sitting birds were males. They were most beautiful with their long tapering yellow crests blowing about in the wind. All the birds were quite fearless, and sat on their nests till I almost touched them, then away they flew uttering harsh screams.

I have in my collection thirteen eggs of this species, the colour, as in all others belonging to the family Ardeidæ, being of a most beautiful blue; but certainly this fades as time goes on in spite of being kept in the dark. In shape they are usually oval in outline, and smooth. In length these eggs measure from 52 to 56 mm., and in diameter from 37 to 41 mm.

A very fine bird, possibly *Phœnicopterus chilensis*, Molina, was observed for some months during the autumn of 1910 near Hope Harbour by an observant shepherd. I rode thither twice during the winter, a distance of nearly twenty-five miles each way, but I never saw it till the spring of the following year, when I managed to get within 600 yards of it. Directly I was detected this bird rose from the marshy pools, and after describing a series of beautiful circles in the air, headed off in a westerly direction. Some time later, February, 1911, while living at Shallow Bay I saw another bird—perhaps the same—fishing in a small lagoon at the head of Byron Sound. This bird rose at once when it detected me, and went through the same evolutions and flew off finally in

a westerly direction. I never heard of this specimen being seen again.

CYGNUS MELANCORYPHUS (Molina), 'Black-necked Swan'.

Curiously enough I never met with a single specimen of this swan during the whole of my last visit. Indeed I never met any one who has of recent years seen one, so I think this species may be included with those which have disappeared of recent years.

The single egg I had given me in 1902 has unfortunately been broken, and I fear I shall not be able to procure another.

CHLOËPHAGA HYBRIDA (Molina), 'Kelp Goose'.

Although this species is far more abundant on the western than the eastern islands, the nests are by no means so numerous as one would be led to imagine. When once paired, these birds are inseparable, and the snow-white gander is a most conspicuous object amid a landscape of greys and browns and can be easily distinguished at almost any distance. The female is spotted and barred with black and white feathers, and therefore very difficult to distinguish, even at close quarters. Often when out nesting, I have seen several of the males a long distance away and have marked their positions, for they invariably move off on the approach of a stranger. On reaching the spot where I first saw them, a search in circles radiating from this centre would then be made, and many times I have often nearly stepped on the sitting goose before seeing her. There is a very sheltered spot in the north-west corner of the West Falklands called Whaler Bay, for in the old days it was the favourite resort for whalers and sealers, driftwood, peat, and plenty of fresh water being easily procurable. At present it is even less disturbed than before, no

KELP GEESE

YOUNG STEAMER DUCKS

one except in quest of sheep ever visiting the spot; hence the birds are very seldom, if ever, molested. Frequently while having my lunch there near the sea-shore quite a number of these birds would gather round and amuse me with their quaint ways. By far the most inquisitive was the goose, who would boldly walk up to within two or three yards of my seat, and prance about, raising and lowering her head, and uttering soft notes of apparent self-satisfaction the while. Soon the snow-white gander would come near, but he was at once driven off, and then the antics were renewed. After a time, several birds of both sexes would come up, and then a free fight always followed, the victorious pair remaining masters of the field.

This species usually frequents the sea-shore where the common sea-weed *Porphyra umbilicalis* abounds between tide marks, and this is their usual food. In the autumn when the berries of the 'diddle-dee' are ripe, pairs of these birds may be found long distances from the sea-shore busily engaged in eating them. But on no other occasions do these birds wander far from the sea.

The nest of the Kelp goose is a clumsy affair placed near the sea, a foundation made chiefly of grass bents or twigs being first made; the interior, however, is always lined with down, and so a beautifully soft bed is provided for the eggs which are laid therein. They vary in number from two to four eggs. Once I found a nest of this species towards the end of November just above high-water mark, amid a quantity of dried *Macrocystis* roots, the usual lining of down being placed on the top. It so happened the gander was resting next his mate, so I rode straight to the nest, but the goose would not move till I almost touched her, the gander, however, made off before I got to within twenty yards. Two eggs, quite fresh,

were secured, and they made a welcome addition to my collection. These eggs are oval in outline, smooth, and a beautiful creamy colour. They measure from 80 to 84 mm. in length, and from 55 to 58 mm. in diameter.

Chloëphaga magellanica (Gmel.), 'Upland Goose'.

One of the most striking birds on the whole archipelago and universally distributed over it. In spite of a reward for the bills of this species, as three of these birds are estimated to devour as much grass as one sheep, and the constant warfare waged on them, they do not appear to be appreciably diminishing in numbers, except near Stanley.

As to how long this species will withstand the slaughter now made by the introduction of cheap ·22 rifles, time will show; but during my last visit I noticed a steady decrease of geese in one place, owing to a recently formed rifle club, the members finding these birds excellent sport with a small bore rifle.

There is usually near every station a good stretch of smooth turf, the outcome of much trampling and seed-sowing, and this forms a greatly desired spot for the geese, and they flock there at times in numbers for the fine pasturage. There is usually some one on the look out, either the men's cook in the cookhouse, or one of the men's wives, for these visitors and so they do not have a very happy time. Yet in spite of being constantly shot at, these birds seldom profit by experience; for I have frequently seen that if one flock is exterminated another soon takes its place.

This species is very easy to shoot on the wing under ordinary circumstances. On being flushed, they will usually describe half a circle round the sportsman before making off, and if the right moment is seized several birds can be brought down with one barrel. By far the most sporting shots can be made at these birds when it is blowing hard. Driven geese fly with

a tremendous impetus and afford splendid sport to one or more gunners hidden behind a rock. On these occasions the birds fly in couples, and a well directed shot will often bring down both. Frequently during the autumn and winter I have had some excellent sport waiting for these birds as they fly from the land to the many estuaries just after sundown. There was one narrow neck of land in particular over which numbers of these birds used to fly past at this time of year, and occasionally I have had quite an exciting five or ten minutes shooting passing birds from my hiding-place on this ridge.

I suppose there is, in most of us at any rate, stowed away somewhere in the brain a love of slaughter which we in our highly cultivated state call for want of a better name 'sport'. Once only have I allowed this love of 'sport' to get the better of me, and thirty-seven picked geese fell to my gun in a single day's shoot. It was on this occasion I made one of my best shots. I saw a flock of seven geese in the distance, and on walking down the wind I flushed them. With two barrels I brought down five birds, the remaining couple flew some two hundred yards or so away over a ridge and I followed. On putting them up I made a right and left and bagged them also; so seven geese fell to my gun with four shots. The average weight of a well nourished adult goose is eight pounds, and sometimes they fall with a thud quite sufficient, one would imagine, to break every bone in their bodies. I once brought down a couple of birds, killing both with a single barrel, and they crashed into a galvanized iron fence some little distance off me. On examination later the galvanized iron sheeting was dented a little, but both birds, beyond gunshot wounds, were seemingly unhurt owing to the abundant covering of feathers.

I may here mention that meat is always kept in an

airy building, with spaces left in the sides and covered with perforated zinc to allow a free circulation of air therein, but chiefly to keep away the blue-bottles (*Calliphora erythrocephala*, Mg., kindly identified for me by Mr. Ernest E. Austen[1] of the British Museum) which swarm everywhere. Here I would hang up the geese I had shot and then ride to the stable, remove the gear from my horse and turn it out in the paddock. It was quite striking to notice any of the men who happened to be working round the house make tracks to this meat-house, remove the beaks from the birds and pocket them. Often the house-boy would meet me later with a very sad expression on his face, and, in answer to my query, would tell me he had missed the beaks; some one had been to the meat-house before him. Anyhow, in twelve months I had added over seven hundred beaks to this man's collection, so he had not very much cause for complaint.

Early in the spring these geese pair, and many fights take place on the bare spaces in the camp for the possession of the desired partner, there being always an excess of ganders. Pairing accomplished, the nests are soon constructed of grass and twigs, a lining of feathers completing the structure; and in it seven eggs are laid, usually in October. These eggs are of the usual creamy colour; they measure from 82 to 85 mm. in length and from 55 to 57 mm. in diameter.

When hatched, about six weeks later, the parents instinctively keep near ponds and estuaries, and on the approach of any one all directly make for the water. During these times the parent birds, and especially the gander, fight furiously in defence of their young. It is said if a pair of parent birds are killed the

[1] Austen (E. E.), Diptera from the Falkland Islands, with descriptions of a new Genus and two new species, *Ann. and Mag. of Nat. History*, Ser. 8, vol. xii, Nov. 1913.

goslings are taken charge of by others of the same species. Hence one may occasionally find a pair of Upland geese with as many as fifteen youngsters with them.

When the young birds are able to shift for themselves the parent birds moult about Christmas time, and when this shedding time takes place the birds cannot fly. During this festive season, all work is abandoned for a few days, and the men devote a few days to seeing their friends, or perhaps a dance will be given. During the day-time shooting is also indulged in, and at times several men will combine forces, and with the aid of their dogs, sweep a large area of camp for the 'shedders', i. e. geese in a state of moulting, and so unable to fly. Once an acquaintance met a vast flock of geese in a great state of excitement, and on continuing his ride soon came upon a dozen or more men on horseback, who were spread out over a large tract of land, and with the aid of their dogs were driving in a certain direction all the geese they could collect. Later, my informant heard that over five hundred geese had been successfully collected within a stone corral and destroyed.

I may mention in conclusion that gosling pie is a staple dish at Christmas time, and excellent fare it is.

Chloëphaga rubidiceps (Sclater), 'Brent Goose or Branter'.

A very striking bird of a rich golden hue and smaller than the preceding species, weighing about five pounds. This species is, so far as I am aware, scarce in the East Falklands, it being only fairly abundant on the Western Island. As this species is far more desirable for table purposes than the Upland goose, it is much sought after, and is more difficult to shoot. They are distinctly shy, strong on the wing, and so make excellent

shooting. Except during the breeding season, October–January, these birds usually keep in small flocks of from four to nine birds.

In spite of most diligent searching I have never found its nest; but I have been told by others who have been more fortunate, that five, rarely six, eggs are laid early in October; and that the nest resembles in every feature that of the Upland goose, only it is smaller. I have only two eggs of this species in my collection; they measure 68 and 72 mm. in length by 44 and 50 mm. in breadth.

Anas Cristata (Gmel.), 'Crested duck'.

One of the commonest, and certainly one of the most prolific, birds on the West Falklands, but not nearly so abundant on the Eastern Island as in former times. It is usually to be found during most seasons of the year in flocks, either in some tidal estuary, or in some secure bay along the sea-shore. This species flies well, and, as those living in many of the fjords are good eating and make excellent shooting, a good many fell to my gun. The birds are most prolific, hatching two, or even three, broods yearly. Nesting begins early in October. The nest is circular in outline and is usually hidden away in an *Empetrum* bush, or rushes, and abundantly lined with down. Seven is the usual number of eggs, but I have found instances where nine eggs were present. These eggs vary in outline from oval to almost elliptical. They are of the usual cream colour, and measure from 67 to 73 mm. in length and from 45 to 47 mm. in diameter. The hen bird sits very close, and more than once my horse has stepped on the nest before the bird would move and even then it would flutter along the ground as if wounded.

Mareca sibilatrix (Poeppig), ' Widgeon '.

This species still remains as in the early days of the colony, ' one of the wildest and scarcest birds ' (Abbott) on the whole archipelago.

Although I have hit more than one specimen when flying past me, I have never handled one.

Once I had the good fortune to find a single nest under rather singular circumstances. I had off-saddled on the north side of Byron Sound in a sheltered spot just adjacent to a large bed of rushes. While seated on a nice specimen of *Bolax* eating my lunch, suddenly in front of me a single widgeon got up, and at once I made for the spot. Here I found a beautiful nest made from rushes most skilfully woven together, and lined with a thick mass of down. It contained eight eggs, which I blew at once. This is the only instance I have ever known of a nest of this species being found. These eggs are elliptical in shape, slightly glossy, and cream coloured. They measure from 53 to 55 mm. in length and from 38 to 40 mm. in diameter.

Querquedula versicolor (Vieill.), ' Pampa duck '.

As Captain Abbott has correctly stated in his notes, it is ' not uncommon, . . . but, when found, generally seen in numbers ', a fact which not only applies to this species, but also to the following one. Once when at Port North Lake I flushed nine of these birds in some rushes. Fortunately I had my shot-gun with me, and within ten minutes I had the lot in my saddle-bags.

I have never found its nest but I have five eggs of this species in my collection. They are very similar, not only in shape but also in colour, to those of the widgeon. They measure from 56 to 59 mm. in length, and from 40 to 43 mm. in width.

A Teal, probably *Querquedula cyanoptera* (Vieill.), is

abundant in certain localities throughout the whole islands. This species nests very early every year. The earliest nest being found on 27th September. Captain Abbott (loc. cit.) obtained the eggs on 18th September, and was informed that 'they lay in August'.

The eggs are oval in outline, smooth, and of a light cream colour. They measure 54 to 57 mm. in length, and from 40 to 41 mm. in breadth.

TACHYERÉS CINEREUS (Gmel.), 'Steamer', 'Steamer-duck', 'Loggerhead'.

There has long been a difference of opinion whether or no there are two species of 'Steamer-duck', a flying and a non-volant species, or whether during some stage of development this species is able to fly. To try to arrive at some definite conclusion was one of the tasks I set myself when I settled down on the West Falklands. I believe Captain King[1] was the first observer to distinguish between a volant and a non-volant 'Steamer', and, although his observations have been questioned by several writers, I am convinced from personal observations that he is correct.

Explorers in the early days, and even up to recent times, found these birds most acceptable for table use; and as they were easy to kill in large numbers were readily consumed, being a welcome change from the ever-present salt-junk or pork with which ships have been provided up to quite recent times.

A useful summary of our knowledge on this subject up to recent times is given by R. O. Cunningham.[2] He says that

'though undoubtedly some steamer-ducks fly, others appear to be either wholly incapable of flight, or do not make use of

[1] *Narrative of the Surveying Voyages of His Majesty's ships* Adventure *and* Beagle *between the years 1826 and 1836*, vol. i, p. 542.

[2] Cunningham (R. O.), *Notes on the Natural History of the Straits of Magellan and West Coast of Patagonia*, 1871, pp. 94–5.

their faculties in this respect, it is nevertheless my belief there is only one species of the genus *Micropterus*, and that the variations in size, capability of flight, and colouring of plumage, are chiefly dependent on the age of the birds.

Secondly, it is my opinion that it is the young birds that can fly, and that the power of flight or the disposition to fly diminishes with age. I have arrived at this conclusion after the examination of a number of specimens of volant and non-volant birds, having ascertained from a careful inspection of the condition of the skeleton, and other points in the structure of the volant specimens (the plumage of which entirely corresponded with King's short description of *Micropterus patachonicus*), that they were all immature individuals (probably the young of the year), and having as invariably found that the non-volant specimens were grown birds.'

Another accurate observer, Captain Abbott, who enjoyed exceptional advantages of studying the birds of this archipelago in the early days, and before many sheep were introduced, records the presence of two species of *Micropterus*, viz. *M. cinereus* and *M. patachonicus*, the former being the common 'Loggerhead' or 'Steamer duck', the latter the 'Flying Loggerhead' His observations on *M. patachonicus* are so brief and so important that I cannot do better than quote them *in extenso*:

'The Flying Loggerhead is not uncommon in the Falkland Islands. It breeds in the same places as the Common Loggerhead, but rather frequents the fresh-water ponds near the sea, and is a difficult bird to approach from its wariness. I never shot but one example of it, and this I had not the opportunity of comparing with the non-flying species. I observed, however, that it was a much smaller and lighter bird, and that the wings were more developed although still small for the size of the body. I have seen the Flying Loggerhead take long flights. I once found a nest of this Duck with seven eggs in it. They were hard set. The bird flew out of the nest on my approach, but high up in the air. The eggs were of the same size and colour as those of the common species.'

According to my observations there are two species of *Micropterus* to be found in the Falklands, and those accurate observers, Captains King and Abbott, were absolutely correct in their brief diagnosis. While hunting for birds' nests near Shallow Bay on 9th October, 1910, I suddenly saw a sitting duck in some Fâchima bushes about a mile from the sea on some rising ground. On driving the bird out, it at once rose some twenty feet from the ground and flew in the direction of the sea. Just at this moment a small boy, who had come up quite unobserved by me, sent his dog, a swift shepherd kind, after the bird. I watched the chase anxiously, and noticed that the bird flew in a very heavy manner, and as there was but little or no wind, it gradually got nearer the ground as it proceeded. At last the bird sank to the ground after the chase had lasted for at least half a mile, and the dog at once caught it and mauled it so much that when I arrived on the scene it was a useless specimen. There was one point I could quite satisfy my mind about, viz. that the bird did not weigh more than 5–6 lb., and that the wings were larger in proportion to the size of the body than the ordinary 'Steamer'. Besides this, the feathers all down the neck and a greater part of the chest were of a distinct reddish hue. This nest contained seven eggs. A few days later I flushed another bird of the same species about three miles distant from this place. On this occasion there was a fresh wind blowing, and the bird on rising at once headed for the sea, which was quite two miles away. Without any apparent difficulty, it covered this distance with ease, flying against the wind all the time, and then pitched on the sea.

There were usually a pair or two of these birds living on Byron Sound lagoon. They were very shy, and it was only with the aid of a pair of binoculars

that I could study them very closely. Once I wounded one bird, but did not kill it; this duck took refuge in the vast bed of rushes fringing parts of that lake. The next day, on revisiting this place, I found the duck dead on the shore, but the hawks had so destroyed it, that nothing could be done.

Passing now on to the eggs of the 'Flying Loggerhead', *M. patachonicus* (King), I have in my collection fifteen eggs of this species, and although they vary a little in size, their general outline is the same. In texture and colour the eggs resemble those of all the duck tribe; being smooth, glossy, and cream colour, but in shape they are distinctly oval in outline, and so differ from those of the 'Steamer duck', *M. cinereus*. Indeed one has no difficulty in separating the two species if they become mixed. My specimens measure from 86 to 90 mm. in length, and from 57 to 59 mm. in breadth.

What struck me more than anything else were the contests during the early spring between the male birds. As these birds invariably keep to the foreshores of the creeks and ocean, the whole is, as it were, divided up, each pair occupying a given area, and should any pair of birds invade the others' territory, instant battle follows. These fights mostly occur during the early spring when the birds are seeking a nesting-place, for, according to my observations, the birds pair for life. Frequently during the spring and early part of the summer one finds dead 'Steamer' ducks either washed up along the foreshores, or lying a yard or two above high-water mark, for they usually come on shore to die, and are quickly devoured by cats or carrion birds. Often when out collecting I have heard a commotion going on upon the other side of a ridge of rocks, and on looking over have always found two male 'Steamer' ducks engaged in mortal

combat. More than once, during these fights, I have managed to get quite near the combatants, but never actually caught hold of them. These engagements are all conducted on similar lines. A strange pair will invade the grounds of another pair, the male bird always leading, the female follows at a little distance. As soon as detected the opposing male advances, his consort following, and the two rush and attack. The bill and wings are chiefly employed, each duck doing his best to seize his opponent by the neck and drown him, by holding his head under water and beating him all the time with his wings; the hard callosities on the wings being the chief weapons for offence. During such a fight, the movements of both birds are so quick as they spin round and round, and there is such a commotion in the water that the eye cannot follow. At last, if one bird should be so successful as to get his adversary 'in chancery'—i. e. get his head under water—his efforts are redoubled, and soon a stream of blood shows that the contest is drawing to a close. After about ten minutes, if the defeated bird can get away, the victor paddles off with his consort, uttering deep growls of joy, while the female mews repeatedly. The vanquished bird makes off as best he can, and may or may not be followed by his consort.

I have often wondered if seals and sea-lions feed on this and other species of aquatic duck. Frequently when out in my boat, I have noticed a pair of 'Steamer' duck suddenly stop feeding and start with all haste for the land. After a few moments, the inquiring head of a seal or sea-lion will be seen to appear either in a bed of *Macrocystis* or in the open water not far from where these birds were, and some time will have to pass before they will resume feeding. Shell-fish of various kinds form their chief food, and the powerful

bills can break any bivalve to be found in those seas. In a very protected sandy bay near where we lived for six months, the foreshores within tidal limits were simply packed with countless numbers of the attractive little echinoderm *Hemiaster philippii* (Gray). A pair of 'Steamer' ducks also resided in this sheltered cove, and as they had their nest on the bank above high-water mark, they strongly resented my frequent visits. These echinoderms lived just covered by the sand, and frequently I have been collecting them and had the pair of 'Steamer' duck also fishing for them close beside me. I was most anxious to study the early changes of this species, the 'Steamers' wanted them for food, but in spite of the heavy toll on the echinoderms by both of us—I must have destroyed some hundreds—there were always enough and to spare for both of us. One fine morning towards the end of January, 1911, both parent birds appeared on the scene with seven young birds and all set to work devouring these urchins. It was very striking to notice how these fledglings decreased in numbers. In a week only five were present, and within ten days only one was left. Whether or no the parent birds attributed this rapid decrease in their family to me I cannot tell; but after that, whenever I appeared on the beach they both attacked me, driving the youngster into deeper water while they always remained close in shore. Early in March this solitary survivor was driven off, as is the custom of this species, to take care of himself.

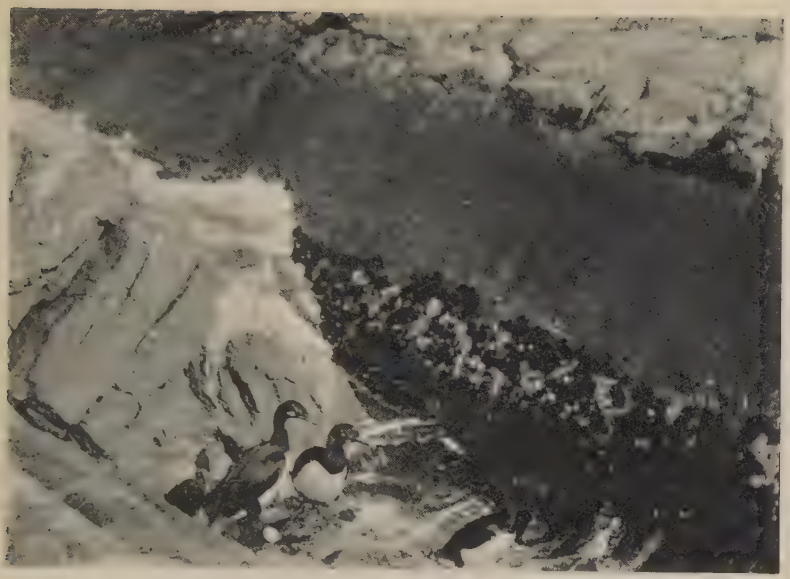
The nest of this duck is invariably placed near the sea amid a growth of *Empetrum rubrum* or *Lomaria*. The nest is built in a depression in the ground and lined with down, and in it from seven to nine eggs are laid. I have found new-laid eggs of this species as early as 12th October and as late as 9th November.

In shape the eggs are oval in outline, smooth, glossy, and light cream in colour, although occasionally one may find some of a darker hue. They measure from 82 to 84 mm. in length, and from 56 to 57 mm. in breadth.

PHALACROCORAX MAGELLANICUS (Gmel.), 'Shag'.

There are many rookeries of this species scattered along the shores of the West Falklands. I found on the west island nests of this species made of grass, or red sea-weeds, while in some cases even the twigs of the diddle-dee (*Empetrum rubrum*) were used. In every instance the whole mass soon became cemented together by the dirt and filth which is the invariable accompaniment of every rookery. There was one large rookery of this species within easy walking distance of our house at Shallow Bay, and as there was no one to disturb them besides myself I used often to visit it during the nesting season. The nests in this instance were entirely made of grass gathered from the cliff, and were arranged along the irregular ledges of the shale cliffs with great regularity.

As soon as the nesting season began, usually towards the end of December, several pairs of Skuas settled down close to the rookery, and at once began to levy a heavy toll on the eggs and, later on, the young. I often used to watch with great interest the manner in which those Skuas would fly up and down these rows of sitting birds. If a Skua should come too near a sitting bird the Shag would thrust out its neck and open its bill in a threatening manner, giving utterance to cries all the time. The instant, however, a nest with eggs was uncovered, there was always a Skua at hand to bag one, and on alighting on the rocks below, smash the shell with its powerful bill and devour the contents. After a time those Shags profited so much by bitter experience that the instant one bird wished to leave its nest, its companion was



A PAIR OF SHAGS WITH ONE EGG

ROCKHOPPER PENGUIN DEFENDING EGGS

always ready to slip on and cover the eggs. I fear these birds had a very bad time that season for, what with the ever-present danger of the Skua gulls, and my frequent visits to secure specimens of eggs for my collection, not a single specimen was raised to the adult condition. Since my return home I have been informed that these birds have had happier times, being able to rear numbers of their young.

Three is the usual number of eggs laid by this species, but I have found as many as five eggs present in a nest. They are invariably bluish in colour, but many are covered with chalk-like blisters. They vary considerably in shape, but usually are oval in outline, the smaller ends being bluntly pointed, and measure from 59 mm. to 63 mm. in length, and from 38 to 43 mm. in width.

Phalacrocorax albiventer (Less.), ' King Shag '.

This species delights to nest amid the ' Rockhopper ' Penguins. The nest is often raised from the ground, a foot or even more, so as to avoid the filth and slime which are invariably connected with a vast assemblage of birds. For this species, like the preceding one, is very cleanly in its habits, and both keep themselves spotless. The nests are made of mud, with which twigs, pieces of tussock-grass, bents of grass, and any bits of herbage which may be handy are worked in ; the whole being cemented together with the mud from round the nest. Indeed it resembles in every way a Mollymauk's nest in miniature.

On many occasions I have noticed that this species, which is a larger and more powerful bird than the Shag, is less inclined to take flight on the approach of a stranger. I have often walked amid a number of these birds mixed up with ' Rockie ' Penguins, and they simply walk off like chickens, keeping perhaps three or four yards distant.

Three eggs are usually laid towards the end of November in each nest. They are pale blue in colour, and usually not so chalky externally as the preceding species. They vary in length from 65 to 68 mm. and 38 to 43 mm. in breadth.

CATHARTES FALKLANDICA (Sharpe), 'Turkey-buzzard'.

A species becoming rapidly extinct owing to the constant warfare waged on it by the farmers and others. It is still fairly common on all the West Falklands, being perhaps one of the most noticeable birds as it sails about the sky in the neighbourhood of the killing-houses or settlements in quest of offal. The best time to observe them is during the killing-season, just before the beginning of winter, when the useless sheep are destroyed for their hides and tallow. At such times one may frequently meet with individuals absolutely gorged with food and almost unable to fly. As a reward is offered for the beaks of this species, owing to their attacking and destroying lambs and sheep when in difficulties, a constant look out is kept; but as the majority of the men are not good shots at birds on the wing, many escape in a more or less maimed condition, and that makes them wary. I was greatly struck by the great diminution of this species round Stanley since my last visit in 1902. I kept a very sharp look out for birds when staying there during my last trip, and on this occasion I did not see more than half a dozen Turkey-buzzards soaring in the air. Not a single specimen was to be seen near the slaughter-house where they used always to be found so recently as ten years before.

Although I never found the eggs of this species, I have on several occasions met with the empty nests. They were invariably made up of *Empetrum rubrum* sticks and twigs roughly placed together; a depression in the middle about two feet in diameter, lined uni-

formly with smaller twigs, made a place where two eggs are invariably laid early in November. Up to 1902 I had only a single egg of this species, but during my last visit I managed to get, owing to the kindness of friends, four more specimens. These eggs are oval in outline and smooth. The ground colour is ivory white, and blotched with reddish spots. They measure 72 mm. by 47 mm.

Ibycter Australis (Gmel.), ' Carancho '.

Another species rapidly approaching extermination owing to a price being placed on its head, or rather beak. It is fairly uniformly distributed throughout the islands but usually avoids all dwellings unless pressed by hunger. Once, while spending the day alone at a very remote spot on Saunders Island, I met with a single individual which was quite as tame as the species must have been in the early days of the colony. It was feeding on a dead ' Rockie ' when I first noticed it. As it was a perfect specimen I tried to kill it with stones, but it simply evaded them in a most dexterous manner, so at last being quite tired out with my exertions I photographed it instead. During my last visit, I found a nest of this species near Berkeley Sound.

I noticed on several occasions at least two species of *Buteo* about the north-western corner of the West Falklands, viz. *Buteo poliosomus* (Quoy and Gaim.), and *B. erythronotus* (King). I once shot a splendid specimen of the first named species under rather singular circumstances. I observed it round the settlement one evening early in November while gathering mushrooms. It was very shy but evidently hungry, so having shot a goose, I placed it in the open and left it. On looking out early the next morning there was the hawk busily engaged in devouring

the goose. Then a long stalk followed, and in the end I bagged this bird. This was the only specimen of this species I ever saw.

B. erythronotus is certainly more common. There was a pair nesting on French Peaks, which form a part of the Mount Adam range, at the back of Hill Cove settlement. When I found the nest in December the two young were hatched. The parent birds were always very much excited whenever I approached, and flew round and round making occasional swoops at me. Once, when rambling over these rocks in quest of ferns and plants during a heavy gale, one of these birds hovered over me and I was able to photograph it.

The third species is, I believe, *Falco cassini* (Sharpe). I have one egg in my collection, given to me by a shepherd. He called it 'Rabbit hawk'. This was secured many years ago on Carcass Island by this man. He assured me that this species is almost, if not quite, extinct. This single egg is oval in outline, and, like the rest of the genus, devoid of gloss. Owing to age the brown spots, which are fairly uniformly distributed over the whole egg, are very faint. It measures 60 mm. by 50 mm.

Once I had two barrels, a long cross shot, at a Sparrow hawk (was it *Accipiter chilensis* Phil. and Landl. ?) as it flew past me, but I failed to secure it. This was the only occasion I ever saw one of this species.

Asio flammeus (Pontoppian), Owl.

I only once found a single specimen of this species under rather singular circumstances. While riding homeward after a long collecting trip, I fortunately flushed one in a dense growth of Fâchima bushes, the bird rising almost under my horse's nose, and it dropped on a bog balsam some fifty yards away. I dismounted at once and a lucky shot from my ·22 rifle enabled me to bag it.

Mrs. Hansen of Carcass Island very kindly gave me a single egg of this species during my all too brief visit to her pleasant island. This egg is oval in outline, and has, probably owing to age, lost all the gloss it once had. It measures 41 mm. in length and 32 mm. in breadth.

ANTHUS CORRENDERA (Vieill.), ' Pipit ' or ' Skylark '.

A migrant, arriving early in November and universally distributed over the islands. It invariably nests in the long white grass, and when one is riding with dogs during the spring over the camp one flushes many specimens. The nests are difficult to find, being always overhung by bents of grass, and are always made of that material and most dexterously woven into a circular mass. I have many eggs of this species in my collection. They are very uniform both in size and colour, being usually pointed oval in outline, and measure about 25 mm. in length and 18 mm. in diameter.

SPINUS BARBATUS (Molina), ' Siskin '.

Many specimens of this attractive bird were fairly plentiful round the settlement of Shallow Bay, and during the winter they were always to be found in flocks of ten to fifteen. When the weather was very severe, in July and August, these birds invariably took shelter in the dense masses of furze which abounded near the house. They were lively little things, and flew in and out of the bushes chattering all the while, before settling down for the night.

The nest is beautifully constructed of twigs, sheep's wool, and a few feathers deftly woven together into a very compact mass, and always placed some little distance from the ground and out of the reach of cats. It measures usually four inches in diameter, while the cup-shaped depression is exactly half that

across and almost the same in depth. Three eggs are usually laid, but four are sometimes present, so I am informed. The single nest containing two eggs, now in my possession, was found in the gorse bushes growing round Mrs. Holmested's old garden at Shallow Bay on 12th November, 1910.

The eggs are oval in shape, smooth, and bluish white in colour. They measure 16 mm. by 12 mm.

Phrygilus melanoderus (Quoy and Gaim.), 'Sparrow'.

This species is also usually to be found round every settlement. The nests are always made of grass bents carefully woven together with perhaps a few feathers, gathered in a near poultry run, mingled with them. The eggs vary in number from four to six, and are laid towards the end of November. They are oval in outline and smooth, the ground colour being light green with light brown blotches and spots scattered over it. There is very little variation in size, being almost invariably 23 mm. in length and 17 mm. in breadth.

Trupialis Falklandicus (Leverk.), 'Starling', 'Crimson-breasted Starling'.

One of the few birds with a brilliant colour inhabiting these islands. This species being non-migrant and abundant in the north-west corner of the West Falklands, I had every opportunity of watching them. I have frequently seen a flock of these birds during the autumn shoot up in the sky from a growth of Fâchima bushes, and should the sun be shining at the time, they resemble great drops of blood. This illusion is all the more noticeable if one half closes one's eyes.

The nest is placed either on the ground or else in some Fâchima or Veronica bush. It is constructed

of bents of grass interwoven, the cup-like inner portion being lined with the finer pieces. On several occasions I have found a nest of this species in the open camp and far from any settlement. In this case it is usually on the ground, and the sitting bird will remain motionless till one almost succeeds in catching it in the hand, though never actually doing so. I have a large number of eggs in my collection. I have secured them as early as 28th October with three eggs, and on the 30th of the same month with four eggs. Usually the eggs are laid by the middle of November. I have specimens in which the reddish brown spots show a decided tendency to congregate at the larger rounded end, but usually they are uniformly distributed over the whole surface. In length and diameter they vary but little, measuring 32 mm. by 21 mm.

XVIII

THE FAUNA OF STANLEY HARBOUR

During my first stay in these islands—from the 5th November, 1898, to 11th May, 1899—I managed a tow-netting trip or a dredging expedition in the harbour about four times a week; not a bad record when one considers the weather. Once I managed to get as far as Sparrow Cove, Port William, and was rewarded by the capture of a medusa of a new genus and species which was, unfortunately, never met with again. These trips were always made in the early morning when the sea was fairly smooth and the wind light.

At the upper or western end of Stanley Harbour where Moody Brook flows in, the volume of which varies according to the rain-fall, is a vast mussel-bed (*Mytilus edulis*) which is sometimes seriously diminished by severe weather. Here, and in other places in the harbour, one frequently finds dead mussels, killed not only by the frost but also by the peaty water flowing over them during winter. I noticed that when the unused shells were subjected to a prolonged treatment of this peaty water they became rotten; the sides break away and leave the mollusc exposed.

There is comparatively but little littoral life till one reaches the jetty opposite Sulivan House, where on the hulk at its extremity a few *Siphonaria lessoni* may be found. On the stones and rocks exposed at low water *Patella ænea* may be picked up and an occasional specimen of *Fissurella*, *Trophon*, and *Euthria fuscata*. As one passes to the eastward the littoral fauna increases both in quantity and variety. On the hulks at the extremities of both the dockyard jetty

and also The Falkland Island Company's west store, numbers of *Trophon geversianus* in the most perfect condition can be obtained. Nowhere else on the whole archipelago can such specimens, showing the longitudinal *lamellae* in such faultless condition, be found. Those I removed from the southern sides of the hulks had probably been there for years, and owing to their sheltered position had never been disturbed.

There is a large sandy patch adjacent to the Company's eastern jetty where my dinghy was moored, and here *Arenicola assimilis*, var. *affinis* (Ashworth) abounds.

All along the foreshores at low-water rocks and stones are uncovered, and here a wealth of life is revealed. *Exosphæroma gigas* abounds in countless numbers under stones and rocks. During brilliant sunshine, and while it is calm, it is most striking to see from a boat dozens of these little crustaceans swimming about in an inverted position, with the paired appendages of the telson standing out at right angles of the body. Immediately on being caught they roll themselves up into a ball, but on being replaced in the sea an individual would sink a few inches and mounting to the surface swim as vigorously as before. That singular little crab, *Halicarcinus planatus* also occurs here in abundance. This and the preceding species can always be found in all the sheltered creeks throughout the islands. The molluscs usually to be found along the foreshores are: *Siphonaria lessoni*, *Euthria antarctica*, *Trophon.* var. *spec.*; *Crepidula dilatata*, *Natica impervia*, *Fissurella picta*, *Patella ænea*, *Tonica atrata*, *Mytilus edulis*, *Saxicava antarctica*, occasionally; and *Chione exalbida*.

Within tidal limits during the summer, various species of fish abound, viz. *Notothenia sima*, are exceptionally numerous, *N. macrocephalus* not very plentiful, while *Harpagifer bispinis* is very common. This species is subject to great variations in colour,

no two specimens being marked exactly alike. *Lycodes latitans* is common.

The littoral fauna remains unchanged until one arrives at the neighbourhood of the narrow passage connecting the harbour with Whale Sound. Here again are vast beds of mussels. I do not think Whale Sound ever completely dries; even during low-water springs there seems always enough water there to prevent any one walking over it, even though clad in sea-boots. *Arenicola similis* also abounds here; it is the only polychaete present; at least, I have never found any others, in spite of much digging in the white quartoze sand. Along the shores towards the Narrows, stones and rocks emerge from the sand until Whalebone Cove—a large sandy indentation—is reached. From thence to the Narrows the littoral fauna is not abundant owing to the steepness of the shores.

The next zone—from low water to fourteen feet in depth—is the richest part. Here *Macrocystis* flourishes, and on its corrugated fronds may be found the beautiful silvery hydroid *Hypanthea hemisphærica*. An exceedingly attractive little nudibranch (*Cratena Valentini*) is always present with the *Hypanthea hemisphærica*, and I am inclined to think it lives on that hydroid. Lower down on the same weed another nudibranch (*Tritonia challengeriana*) may occasionally be secured. Sometimes on the fronds of Macrocystis may be seen that singular crab *Eurypodius latreillii*, of which the four pairs of the ambulatory appendages appear to be modified to enable it to cling to this weed. The largest specimen of this species I ever saw was found dead on the shore in Shallow Bay, West Falkland, after a gale. The carapace measured 5½ inches in length; while the whole animal spread out was fifteen inches across. I put this specimen out to dry close to the house, but a hungry Skua gull found, and soon destroyed, it.

Hydroids and Bryozoa of various species appeared in abundance on the fronds of *Macrocystis pyrifera*. On the root, too, one can always find two interesting Echinoderms, viz. *Psolus ephippifer* and *Goniocidaris canaliculata*. While in the neighbourhood of the Narrows, on the fronds of the same sea-weed and not far from the root, quantities of that singular Holothurian *Cladodactyla crocea*, Less., can be secured. This same species can also be dredged in abundance on the mud in the channel at the entrance to the Narrows. I tried in vain to study the early developmental changes of this species, and particularly the passage of the young to the exterior, but I was not successful. Towards the end of January the young can be readily observed adhering to the parent, and most attractive objects they are.

Medusæ. The medusæ of various species were wonderfully abundant in this land-locked harbour. My friend, Mr. Edward Browne, of the Zoological Research Laboratory, University College, has already published a preliminary Report[1] on the collections made during these two visits to Stanley. Before long I hope the full Report with his beautiful coloured drawings will be issued.

Vermes. Polychæte larvae were never abundant in the tow-net. During both visits to Stanley not more than a dozen specimens were to be seen in any gathering. The only adult pelagic worm was *Autolytus simplex*, and this species was always present in varying numbers. I first noticed it carrying ova early in December. These eggs are very noticeable, being bright green in colour.

Chætognatha. I collected six specimens of *Sagitta serratodentata* during my first visit; but I never met

[1] Browne (E. T.), A Preliminary Report on Hydro-medusæ from the Falkland Islands (*Annals and Magazine of Natural History*, Ser. 7, vol. ix, 1902).

with them again. These specimens were duly identified later by Dr. G. H. Fowler.[1]

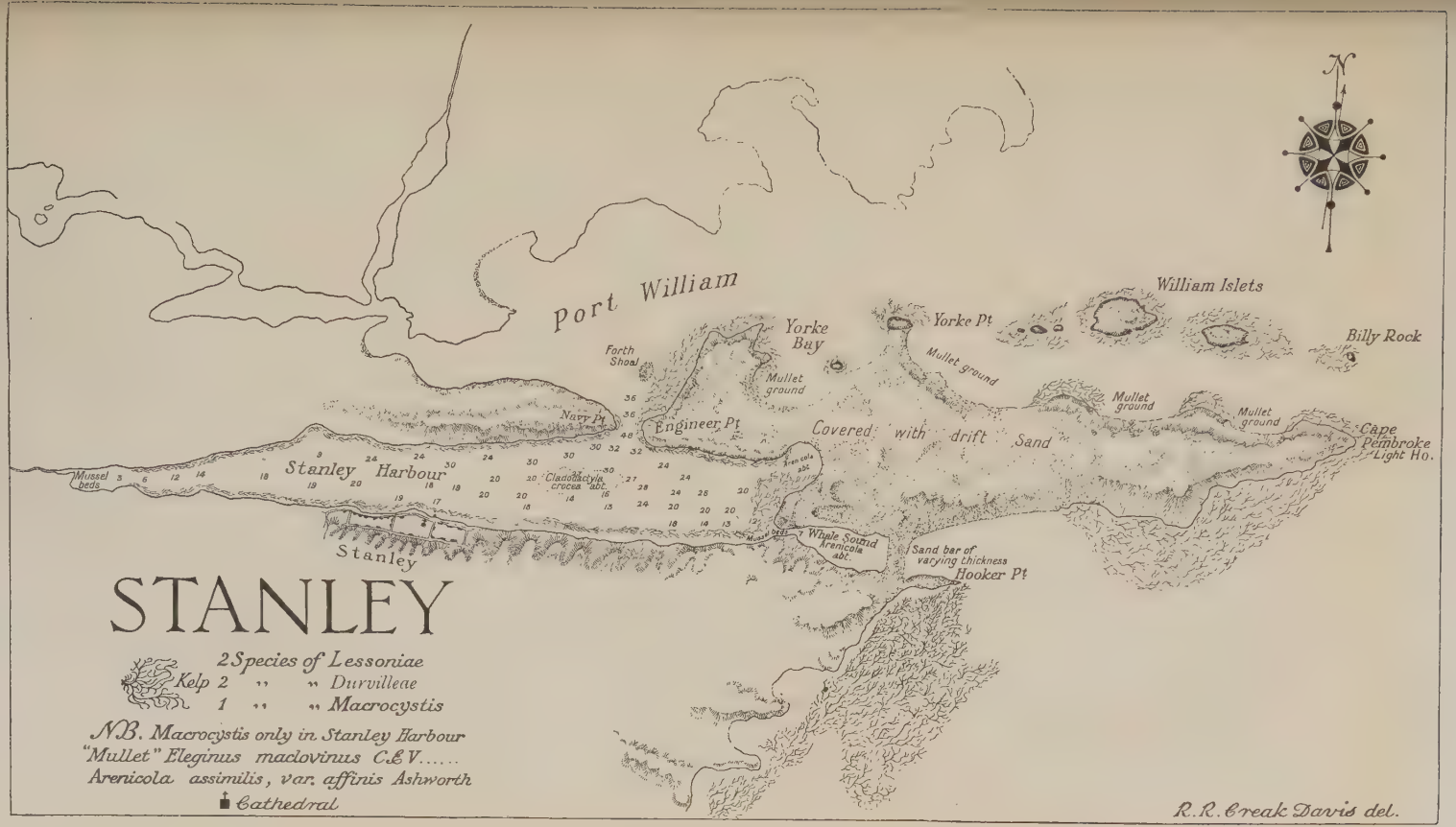
Crustacean larvæ and Balanus larvæ were always present during the summer months in the tow-net; and during a bright day they simply swarmed in the sea next the surface. There were, so far as I could judge, not more than three species of crustacean larvæ present in my tow-net gatherings. Unfortunately I was unable to follow their several stages of development. They were present in varying numbers from December to the end of January.

In some places in this harbour *Cladodactyla* appears to lead a free existence away from the Macrocystis, and lives on the mud.

Outside this fringe of Macrocystis is a uniform layer of the finest, stickiest mud it has ever been my bad fortune to meet. During my first visit, I found that the ordinary light naturalist dredge was absolutely useless, it sank at once. The next time I came out I brought with me a dredge on runners, and this worked admirably, provided one kept a short line. An occasional specimen of *Peltarion spinosulus* could be bagged, but this species usually frequented shallower water. With a very light iron dredge, covered with mosquito netting, several species of sessile-eyed crustaceans were secured, one of the commonest being *Serolis paradoxus*, Fabr.

I have indicated on the accompanying chart localities in the harbour where, according to my experience, one can usually obtain certain species with a tolerable degree of certainty. The remainder of the ground calls for no special notice.

[1] Fowler (G. H.), Biscayan Plankton collected during a cruise of H.M.S. *Research*, 1900 (*Trans. Linnean Society*, Lond., Ser. 2, vol. x, Zoology Part III, *The Chætognatha*, January, 1905, p. 85.



PLAN OF STANLEY HARBOUR

Showing position of some of the fauna

Copepoda

Just before his lamented death on the 6th November, 1903, Mr. Isaac Thompson, F.L.S., very kindly sent me some notes on my first collection of copepods made in Stanley Harbour. These gatherings were made from November, 1898, to February, 1899. His Report is as follows :

Falkland Islands Copepoda

'Twenty-one small vials containing copepoda taken in Stanley Harbour between December 1898 and February 1899 were handed to me for examination by Mr. Rupert Vallentin.

The amount of material in each was very small and the contents presented very little variety ; seven species in all being obtained, viz. :

Calanus propinquus, Brady.
Rhincalanus gigas, Brady.
Drepanopus pectinatus, Brady.
Oithona similis, Claus.
Oithona plumifera, Baird.
Thaumaleus thompsoni, Giesbrecht.
Zaus goodsiri, Brady.

As will be seen from the following particulars of the various gatherings there is little or no difference in those species collected at the surface and at the bottom or intermediate. Indeed, one species—*Drepanopus pectinatus*—itself hitherto exceedingly rare formed the main bulk in all the bottles of material, eleven of them containing nothing else. Six of the bottles—Numbers 12, 13, 14, 15, 16, 20—contained specimens of the Cladocera *Podon intermedius* ; in Nos. 13, 14, 15, 16 they were very abundant. Neither depth nor temperature appeared to have influenced their presence. In each case they were associated with the Copepod *Drepanopus pectinatus* only, with the exception of No. 16, which contained a solitary specimen of *Zaus goodsiri*, a ground-feeder, probably there by accident.

Particulars of the various tow-net gatherings, with the species of Copepoda found in each :

No. 1. Copepoda taken in surface tow-net, high water surface. Temperature 48·3° F. High water ; 19 December, 1898 :

Calanus propinquus, Brady.

Rhincalanus gigas, Brady.
Drepanopus pectinatus, Brady.

No. 2 a. A large species of copepod fairly common in the surface tow-net towards the end of 1898 and the beginning of 1899 (these specimens were very difficult to catch with a pipette):

Calanus propinquus, Brady.
(Probably) *Rhincalanus gigas*, Brady.
Oithona similis, Claus.

No. 2 b. Bottom tow-net: 3 fms., tide, three-quarter ebb. Temp. 49·9° F. 27 December, 1898.

Calanus propinquus, Brady.
Drepanopus pectinatus, Brady.

No. 3. Surface tow-net; almost low-water; temp. 47·3° F. 21 December, 1898.

Calanus propinquus, Brady.
Drepanopus pectinatus, Brady.

No. 4. Surface tow-net; almost high-water; temp. 49·6° F. 2 January, 1899:

Drepanopus pectinatus, Brady.

No. 5. Bottom tow-net; 3 fms.; tide, two hours' flood; temp. 49·6° F. 5 January, 1899:

Drepanopus pectinatus, Brady.
Thaumaleus thompsoni, Giesbrecht.

No. 6. Surface tow-net; tide, temperature, date, as above:

Drepanopus pectinatus, Brady.
Oithona plumifera, Baird.

No. 7. Bottom tow-net, 4 fms., tide, ebb 1½ hours; temp. 50·6° F. 11 January, 1899:

Drepanopus pectinatus, Brady.
Rhincalanus gigas, Brady.

No. 8. Bottom tow-net, 4 fms., tide, ebb 2 hours; temp. 54·9° F. 16 January, 1899:

Drepanopus pectinatus, Brady.

No. 9. Bottom tow-net, 3½ fms., almost low water; temp. 52° F. 17 January, 1899:

Drepanopus pectinatus, Brady.

No. 10. Surface tow-net; tide and date as above. Temp. 54° F.:

Drepanopus pectinatus, Brady.
Thaumaleus thompsoni, Giesbrecht.

No. 11. Surface tow-net; tide, date, temp., as above:
Drepanopus pectinatus, Brady.

No. 12. Bottom tow-net, 3½ fms.; tide, high-water; temp. 52·3° F. 19 January, 1899:
Drepanopus pectinatus, Brady.

No. 13. Bottom tow-net, 4 fms., high-water. Temp. 50° F. 28 January, 1899:
Drepanopus pectinatus, Brady.

No. 14. Bottom tow-net, tide, 1½ hours' ebb; temp. 48·6° F. 31 January, 1899:
Drepanopus pectinatus, Brady.

No. 15. Surface tow-net; tide, three-quarters flood; temp. 49·6° F. 1 February, 1899:
Drepanopus pectinatus, Brady.

No. 16. Surface tow-net; tide, three-quarters flood; temp. 50° F. 3 February, 1899:
Drepanopus pectinatus, Brady.
Zaus goodsiri, Brady.

No. 17. Bottom tow-net; tide, 1 hour flood; temp. 50·6° F. 5 February, 1899:
Drepanopus pectinatus, Brady.

No. 18. Surface tow-net; tide, half an hour ebb; temp. 50·6° F. 6 February, 1899:
Drepanopus pectinatus, Brady.
Oithona plumifera, Baird.

No. 19. Surface tow-net; tide, flood; temp. 51° F. 10 February, 1899:
Drepanopus pectinatus, Brady.

No. 20. As above:
Drepanopus pectinatus, Brady.

No. 21. Removed from the gills of a fish,
Harpagifer bispinis, Forst.

[Note by Mr. Thompson: "Not found in box!"]

Notes on the Species

Calanus propinquus, Brady. This species has a near resemblance to the more common *C. finmarchicus*; its larger anterior antennae and differences in the fifth pair of swimming feet are the chief distinguishing features. It has a wide geographical range throughout the Atlantic, Pacific, and

Indian Oceans. It occurred in four out of the twenty-one bottles.

Rhincalanus gigas, Brady. A few specimens only of this large species were found in four of the bottles. Its long brittle antennae were all broken. Its known range is the Atlantic and Pacific Oceans.

Drepanopus pectinatus, Brady. As previously stated this hitherto rare species formed nearly the entire bulk of the collection. Brady, in his *Challenger* volume, reported it [1] as occurring very abundantly in their surface-net gatherings near Kerguelen Island in the Indian Ocean. And here far away in the South Atlantic, but in almost the same latitude (50° S.), we find it about the Falkland Islands equally common. I am not aware that it has ever been reported elsewhere.

Oithona similis, Claus.

Oithona plumifera, Baird.

O. similis was found once and *O. plumifera* twice in the collection, and but very few specimens of each. It forms a considerable southern extension of their range of distribution.

Thaumeleus thompsonii, Giesbrecht. A few specimens of this remarkable form were found in two bottles of the collection. Like the other members of the family Monstrellidae to which it belongs, and as was demonstrated by Professor Giard of Paris and confirmed by M. Malaquin in the case of one or more species, its early stages are probably spent parasitically in the body cavity of certain worms. Its known range of distribution has hitherto been confined to Europe.

Zaus goodsiri, Brady. A solitary specimen of this well-known British form was found in bottle No. 16. It had probably become detached from some floating alga, its usual home. It is common about our British coasts, and Claus reported it from Heligoland. Its presence in this collection may indicate that it has a wide range, and like many other of the littoral bottom species only requires looking for.'

[1] Brady (G. S., M.D., F.R.S., &c.), Report on the Copepoda obtained by H.M.S. *Challenger* during the years 1873–6. 1883. p. 77. (Voyage of H.M.S. *Challenger*. Zoology, vol. viii, Part xxiii.)

XIX

THE WEST FALKLANDS

Collecting in the West Falklands — Saunders Island — Marine Algae of West Falkland.

A RIDE from Fox Bay to the north-western corner of West Falkland is not only picturesque but fraught with interest both to the zoologist and botanist. Several lakes fringed with rushes are passed, which afford shelter to numbers of teal and other birds; upland and brent geese being met with in large numbers. A party of six men armed with ·22 long rifles killed nearly 200 upland geese one summer's day on a ride from Fox Bay to Hill Cove. A range of hills runs nearly east and west across the north of West Falkland, and in many ways resembles the highlands of Scotland. Mount Adam, the highest peak in the range, is 2,315 feet high, and is the highest hill in the islands. I had for many years wished to get to the top of this hill. At last one fine morning in February I left Hill Cove with a guide—both of us on horseback—to carry out my wish. The sun streamed down from a cloudless sky, there was not a breath of wind; and, oddly enough, it remained calm throughout the day—an exceptional event in the Falklands.

After crossing a high ridge we came down into a valley; then crossing a mountain torrent passed through a gate and then began to ascend. I had, unfortunately, no camera; there was not room for it with 100 fathoms of sounding-line, a seven-lb. deep sea-lead, bottles, formalin, hand-nets, food, and other things. I had heard strange tales of unfathomable pools on the top of Mount Adam, and expected to

find at least the crater of an extinct volcano. The first part of the climb was very steep; my guide and I had frequently to dismount and help our horses over the peaty soil. We then struck a spur of mountain sloping towards Byron Sound; this was our most direct track to the summit. Throughout the climb the ground was never really firm, and the horses had many a struggle to gain a foothold.

It was interesting to note the change in the vegetation as we ascended. At about 800 feet *Empetrum rubrum* vanished, and before this the common ferns *Lomaria alpina* and *L. magellanica* had quite disappeared, their place being taken by *Drosera uniflora* which continued right up to the ponds on the top, and seemed to crowd out everything else; the bog balsam also remained with us. Rocks had peeped up from the peaty soil ever since we had left Hill Cove; but as we went higher they became more and more visible, and in places rose up in great piles, weathered into the most fantastic shapes.

As we came near the top of the slope we felt bitterly cold, in spite of plenty of warm clothing. How we should have fared if a gale had sprung up I do not know; shepherds have told me that they have the greatest difficulty in holding their own on these hills in a high wind.

After successfully crossing several patches of treacherous ground and rocky ridges we came suddenly on a large natural amphitheatre 150 feet high and measuring about half a mile across. At the eastward it broke away, and two waterfalls tumbled from the upper and lower pools into the great stone-river which filled the valley below. My guide rode easily along the western edge of this cliff; but I confess I followed him with some trepidation. From here one could see the lower pool, which certainly looked bottomless—an inky pool of water fringed with light gravel.

When we reached some sheltered rocks we off-saddled, and hobbled our horses, which were bathed in sweat.

A wonderful scene lay before us. To the north-east was the Eddystone rock; strange and isolated it formed for centuries the land-mark for all ships coming to the islands. Pebble Island lay in the far distance; nearer was Keppel Island, forming the eastern boundary to Port Egmont on Saunders Island. Numerous islets showed here and there, the most prominent being Carcass Island; the Jasons lay dimly outlined in hazy distance away to the north-west. Stretching away from us for upwards of twenty-five miles rose the continuation of the Mount Adam range, ending, as it were, with West Point Island, with its cliffs towering 1,200 feet high. It was with reluctance that I turned away to examine the two pools near the summit of Mount Adam; we will call them the upper and lower pools. They were separated by a stretch of undulating land measuring perhaps 200 yards.

Standing at the north-west edge of the upper pool I was struck with the paved look of the shore; examination showed that the action during the ages of ice and snow had worn the surface fair and smooth. After making a hand-net gathering along the margin of the pool my companion and I moved opposite one another on the shores of the pool and let the sounding-lead go. I hauled in the line, and, making a rough calculation, estimated the depth as about forty feet. The surface temperature was 50·9° F., that of the air 47° F.; time, noon, and brilliant sunshine.

The lower pool was roughly oval; into it flowed a torrent of the purest water I have ever seen. Nowhere in the pool could I find water deeper than about thirty-five feet. At its bottom was a uniform fine layer of quartz sand intermingled with stones and rocks. This was followed by a peculiar vertical

wall of about two feet, which seemed to fringe the whole pool. I made several gatherings with a hand-net, and secured two copepods of great beauty. The male was so brilliantly coloured with various shades of blue, yellow, and green that it reminded me of the familiar English marine copepod *Anomalocera patersonii*. The female was of a uniform dark blue colour and was not so striking in appearance. This species has since been identified for me by T. Scott, Esq., LL.D., as *Parabroteas sarsi*, Daday.

The most striking plant observed during this trip was a large growth of *Nassauvia serpens*, its creamy, vanilla-scented flowers festooning the rocks adjacent to the higher pool. The plant must have attained its present size after many years of uninterrupted growth. After collecting various species of plants and lichens—*Neuropogon melaxanthum* being very plentiful on this mountain—my companion and I started on our homeward journey, descending into Byron Sound as the sun was setting in rose and gold over Saunders Island.

I used to look across from Shallow Bay at Saunders Island (where was the British settlement) and think what a delightful island it would be to explore. At last one bright morning early in March my wife and I started off on horseback for Rapid Point. The passage between the main island and Saunders is decidedly dangerous and can only be safely negotiated during slack water. Favoured with a light breeze and in a stout rowing-boat, with our host Mr. Benny at the helm, we easily crossed this passage, and, arriving at our destination, spent a pleasant week on the island. The original settlement is about two miles away from the present sheep-run belonging to the Benny family. Byron Sound flows between Saunders Island and the main island; in the distance lies the Mount Adam range of hills.

We spent a pleasant day at the old settlement; my wife sketching while I examined the fauna of the shore and explored the ruins of Port Egmont. A convenient creek with a soft bottom runs along the old settlement, while two fairly commodious tidal harbours built of surprisingly large stones bear witness to the excellent workmanship of those days. On the south crest of the creek are visible the remains of the house occupied by the officer in charge, while the outline of less substantial buildings can still be traced on the ground sloping to the creek. On the ridge of rising ground to the northward stood the block-house. Now only the faint outline of the bastions can be traced, so overgrown is the ground with fâchima bushes. About a mile or so to the northward is a sandstone cliff, shaped by weathering into fantastic shapes. Here in a deep recess a few stray specimens of the delicate maidenhair fern *Adianthum chilense* are still to be found; Mrs. Benny allowed me to gather a few fronds of it, which made a welcome addition to our botanical collection.

Another day I explored the north west extremity of this island; and also walked to a large sandy bay on the west of the entrance to Port Egmont. On favourable occasions one can obtain on this sandy beach a very fine specimen of Volutes (*V. magellanica*), a species always to be secured if possible. After a steep climb over Mount Egmont the rest of the journey was fairly easy, in spite of a fresh north-west wind. I found two fresh-water pools separated from each other by a narrow neck of land, a sandy hill sheltering them from the sea. One pool was turbid with particles of peat, but the other was pellucid, so, with my hand-net, I was able to make a representative gathering. I then followed a winding sluggish stream down to the sea-shore, disturbing on my way widgeon, teal, penguins, and upland geese.

At the junction of the stream with the sea was a small gentoo rookery; while, on the shore, were scattered the ribs and vertebrae of whales. Although it was low water and the sand-bank was exposed no volutes were to be found, and after a paddle in icy-cold water I gave up the attempt and went home.

My wife and I made our home for a time at Shallow Bay, Hill Cove, and here we had a most enjoyable time. We had a large work-room in which we could make as much litter as we pleased; and ample tables and forms; we had, moreover, a large grate constructed to burn peat, and here during wet days we had a glorious fire. Our house was just in front of Shallow Bay, which is one of the many indentations of the inner passage running from Port Egmont to Tamar Harbour. We looked towards Keppel Island and the view of ever-changing sea and sky was very beautiful. Shallow Bay is an ideal spot for a zoologist or botanist, there is so much to investigate; shore collecting was excellent and the bird life most varied. We also had access to two lakes and one large pond The further lake, known as Port North Pond, was twenty-six miles from our house, being at the extremity of an indentation of the coast called Port North. One of the earlier settlers told me that between thirty and forty years ago the lake was in direct communication with the sea; but recently the shifting sand-dunes have quite altered the features of the valley; so that now only a fine stream, really an overflow, communicated directly with the sea. So interesting seemed this lake that when, owing to the weather, marine work was impossible, I often rode to this sheet of water to collect and examine its contents.

At its eastern end there is a steady inflow of water of varying size from a valley which extends for some miles to the eastward, gathering water from even the southern slopes of the Mount Adam range. This end

of the lake, grass-covered to the water's edge, is very ragged, being cut into numerous little bays with miniature cliffs from one to three feet high. As no similar formations were to be found elsewhere along its shores I imagine they were caused by waves during the westerly gales. As a natural consequence the adjacent land is most treacherous, the long grass effectually covering all dangers. Indeed, so many sheep have been lost here that the surrounding land is very securely fenced off so as to exclude all animals. The stream gradually widens out into this sheet of water, the southern edge is very steep, while the northern shore is marshy and flat, two small streams flowing into it. About midway between the eastern and western extremities, and so in the middle of the lake, is the deepest part—about twenty-six feet. It shallows very rapidly towards the western end owing to the vast quantities of sand blown thither by the westerly winds. Indeed, during a westerly gale, a miniature sandstorm could be noticed in this direction, so at those times I always avoided that end of the lake. The high hill bounding the western end is chiefly composed of drift sand and stones ; the lower part being still fringed with fâchima bushes, while here and there stray plants of *Empetrum* struggle ineffectually against the ever-encroaching sand. At this point the lake turns ; and after skirting the hill winds round and finally ends at the upper extremity of Port North. There is also a small stream joining the lake at the southern angle of this bend. The lake varies considerably in size according to the weather ; it also drains an extensive area of land.

With the exception of some rushes—*Marsippospermum*—and isolated patches of water plants, this lake is very open, drift sand being confined at present to the western end, clay, stones, and peat being present elsewhere. From some soundings taken at

this end I estimate the average depth to be not more than fifteen feet. The whole place teems with wild-fowl. Upland and brent geese, teal (two or more kinds); a few widgeons and grebe being always seen; so I usually returned from a visit there well laden with game in addition to my collection.

I began my investigation of the Plankton there early in November 1909. The water at that time was teeming with a species of *Conochilus* very similar to, if not identical with, *C. volvox*, Ehr., a species well known to me. I found it impossible to make as close an examination of these colonies as I could have wished; the jolting during the ride home always broke them up. Besides this species of *Rotifera* others, belonging to the following *genera*, were detected in the gatherings made during this month; viz.: *Brachionus*, *Salpina*, and *Mastigocera*; but it is impossible for me to identify the species. Contrary to my expectations not a single specimen of either *Floscullariidæ* or *Melicertidæ* were ever met with on any pond weed throughout the whole archipelago. *Hydra* was also conspicuous by its absence. Specimens should be present, seeing it has been recorded from Patagonia, and everything, so far as I was able to judge, was favourable for its existence, but it eluded me.

Once I bagged in this pond two specimens of *Hirudo* which I found under a stone on the southern shore. They were, doubtless, imported, adhering to the feathers of aquatic migratory birds.[1] I made a rough dissection of one specimen, and preserved the other. This was later on unfortunately lost.

Mollusks were, for some reason, very scarce. A few fresh water snails (*Limnæa diaphana*)[2] occur on the

[1] Guerne (Jules de), On the dissemination of Hirudinea. *Annals and Mag. Natural History*, vol. x, No. 55, July, 1892, p. 117.

[2] Melvill (J. C.) and R. Standen, Notes on the Mollusca collected in the North-West Falklands by Mr. Rupert Vallentin, F.L.S., with

under surface of stones along the shores, but nowhere were they at all abundant.

Trout abound. The specimens I brought home with me from this lake have been examined by Mr. G. A. Boulenger, F.R.S. He identifies them as *Galaxias attenuatus*, Jen. Post-larval specimens were abundant in hand-net gatherings during January, 1910.

Two species of copepods (*Boeckella Michaelseni*, Marz., and a few *Cyclops Michaelseni*, Marz., var. *falklandi*) were present in varying numbers.[1]

Cladocera. *Daphnia pulex* was present in considerable abundance from November to February, after which they decreased in numbers. During the winter months (June to August) they were always very scarce. With these were a few *Ceriodaphnia Silvestrii*, a species described by Dr. Daday as coming from Patagonia.[2] A species of *Bosmina*, probably *B. longirostris*, is, next *D. pulex*, more or less common in the ponds and pools throughout this district. At first I was inclined to imagine there were two species present; but on further examination of this material I finally decided there was only one. Dr. Daday does not record this species in Patagonia; but as it is, according to E. A. Birge,[3] 'very common and very variable' in the lakes and pools in the northern half of the American continent, I think we may safely conclude that this statement may extend to the ponds and pools of the Falklands. *B. longirostris* was most

descriptions of six new species (*ut supra*, Series viii, vol. xiii. January, 1914, p. 126).

[1] Scott (Thomas), Remarks on some copepoda from the Falkland Islands, collected by Mr. Rupert Vallentin (*Ann. and Mag. Nat. Hist.*, Ser. 8, No. 73, January, 1914).

[2] Daday (Jenö), Mikroskopische Süsswasserthiere aus Patagonien (*Természetrajzi Füzetek*, No. xxv, 1902).

[3] Ward (H. B.) and Whipple (G. C.), *Fresh-water Biology*, 1918. Chap. xxii: The Water Fleas (Cladocera), by Edward A. Birge, p. 706.

numerous in February; but samples could be found nearly all the year round in this lake.

A species of *Camptocercus*—probably *C. rectirostris*—was also present in the lake in varying numbers during the summer months, but was never very abundant. *Chydorus sphæricus*, a cosmopolitan species, was only fairly plentiful in the lake; but at times it swarmed in the moor pools throughout this region.

About a mile to the southward of Port North Pond there was a chain of three small ponds, separated from each other by marshland, in a valley running due east and west from Port North. These ponds were, roughly, circular in outline and averaged nearly one hundred yards across. They abounded with upland and brent geese; a few teal also being present. Besides these three ponds, which never became dry, were several others of varying size in this valley which at times contained interesting microscopic forms. One of these, in the centre of a marsh, never became dry. Here were matted roots of *Caltha sagittata* which must have been growing for ages, for they were so massive that I could walk upon them with absolute safety. It was here, and growing on the submerged roots of this plant, that, once only, I secured the finest colonies of *Epistylis flavicans* I have ever seen. Fortunately this species of Infusorian is hardy, so I was able to take some fine colonies home for microscopical examination. I never met with this species again.

The pond near Hill Cove settlement and Byron Sound was somewhat inaccessible, being about equal distance—some fifteen miles—from Roy Cove and Shallow Bay settlements. It is a fine sheet of fresh water separated from the sea by sand hills. I was never very successful in my collecting there, though it appeared to be a far better collecting ground than either Port North Pond or Byron Sound Lagoon.

I visited it several times and made several collections in its waters, but only once did I secure anything of exceptional interest. On this occasion I noticed some minute specks swimming in an overflow from the pond; they were easily seen against the bright sandy bottom so I soon worked my hand-net through this water and on examining my capture with a pocket lens I was astonished to find I had an absolutely pure gathering of a species of free-swimming Rotifer. Although I have collected in many climes never before or since have I obtained such a gathering. There must have been thousands present in this little body of water which could easily have been held in an ordinary hand-basin. Fortunately this species is easily identified by its lorica as *Brachionus pala*, Ehr., a common cosmopolitan species.

Rushes (*Marsipposperma*) abounded, and at one swampy end another species, *Scirpus*, was also present. The usual wild-fowl, viz.: two species of geese, teal, and an occasional snipe, could be found along the shores; but the last named were always scarce, owing to the presence of cats—the domestic cat turned wild.

Byron Sound Lagoon. This fresh-water lake was ideal in every way, being only about four miles from our home at Shallow Bay, therefore very easy of access; and many pleasant hours have my wife and I spent there. It was fairly sheltered from the winds; plants abounded not only along its shores but also, in some cases, in the water; so we could always be certain of returning to Shallow Bay house not only with our saddle-bags full to overflowing with specimens, but with game hanging from our saddles. From the crest of the Channel Hills, about two miles distant, this lake could be clearly seen, with the dangerous Reef Channel beyond it, and Byron Sound with part of Saunders Island to the right. The lake measures about 400 yards in length and 150 yards in diameter,

its long axis being nearly due east and west. The greater part of its northern edge and the whole of the western shore is bounded by a vast bed of rushes, identified as *Scirpus lacustiis*. Besides flourishing in this lagoon the species grows on the pond near Hill Cove station and also in a lake about midway between the Chartres Station and Fox Bay. This luxuriant bed of rushes affords splendid shelter to quantities of wild birds, where they are able to nest and rear their young in safety. There are two streams draining into this lagoon, the one from the east, which collects water from the Channel Hills; and a smaller one joining the lake at the south-west corner; but it is sluggish and much overgrown. The overflow is at the western end and, after passing through some swampy ground, ends in Byron Sound. Judging from the configuration of the surrounding land this lake is shallow, but it has never been known to dry up.

Trout (*Galaxias maculatus*, Jen.) abound. Once, on 4th January 1910, I managed to bag a host of post-larval specimens under rather singular circumstances. There had not been much rain recently, and the stream flowing into the eastern end of the lake was reduced to a fine trickle. Here these larvae were trying ineffectually to pass from the lagoon to this stream, but there was not sufficient water for them to do so. I bagged numbers of them with a single dip of my hand-net.

Mollusks (*Limnæa patagonica*) abounded along the shores; they are doubtless devoured in quantities by the fish in the lagoon. For some unknown reason *Daphniæ* were never detected in this lagoon. Towards the end of December 1910 a few *Ceriodaphnia Silvestrii* were secured; and *Chydorus sphæricus* and *Lyniceus costatus* were more abundant. Once I secured some specimens of an interesting organism which I believe to be a species of Red water-bloom—

A GOOD TROUT-STREAM

Herbert Stream, Crooked Inlet, West Falkland

(*Lamprocystis roseo-persicina*, Schroeters). I noticed in one hand-net collection some small irregular spheriodical masses of a rose-pink colour. Examined microscopically they were seen to consist of spheres joined to one another in a net-like manner. They were hollow. These specimens were subsequently preserved in formalin, but, unfortunately, they were lost. I never met with this organism again.

I visited Teal River settlement twice; and also made some collections in a chain of deep pools some three miles or so to the westward. In all these ponds, which are placed amid pure peat banks, there are great quantities of a very fine material, which seemed to be derived from the surrounding peat banks, suspended in the water. These particles at once choked the meshes of my hand-net and so rendered it useless. As in England, peaty water is never favourable to minute life, so I was not disappointed to find only a few *Boeckella Michaelseni* present.

At Teal River, about half a mile distant from the settlement, is a large, roughly-circular depression with a sandy bottom, about a mile in diameter. When I first saw this pool I was astonished to see a number of Upland geese apparently walking about in the middle; and on riding up to investigate found the whole pool quite shallow, fine quartoze sand being uniformly spread over the whole basin. So I was able to explore it on horseback and also to collect with my hand-net from the saddle—quite a unique method of fishing. Later, the bright sandy bottom attracting the solar rays so warmed up the shallow expanse of water that I quite enjoyed paddling about and collecting. There was a small stream flowing from the northern extremity of this pool, which ran winding its way through a peaty swamp for nearly two miles, to end in one of the many creeks which fringe the northern shore of King George's Sound.

A small trout (*Galaxias maculatus*) abounded not only here but also in the adjacent stream; and I was able to catch some nice specimens while on horseback, for the fish did not seem in the least alarmed although while wading in the water I found it impossible to get near them. One of these trout had several *Glochidiæ* adhering to its posterior extremity; and this at once set me to work to find the fresh-water mussel. Since my return home Mr. Sydney Miller, of Hill Cove, who has always aided our work in every way, sent a lad to this place to hunt for the desired bivalve; Dr. R. Wace also joined, later, in the hunt. But up to the present all efforts have been fruitless; and examples of *Anodon* from the Falkland Islands have yet to be brought home. It was also in this place that fine specimens of *Nitella* were first found growing in the sandy bottom. Some flowering specimens of a diminutive *Caltha sagittata* were also gathered.

This settlement derives its name from the abundance of teal in the neighbourhood. There were plenty of these birds about during both my visits; but not having a gun with me either time they were left unharmed.

As may be imagined from the abundance of sand pelagic life was scarce. There were a few *Boeckella Michaelseni*. No *Daphniæ*, and only a few *Bosmina longirostris*, were noted. No gastropod mollusks were found; and I wondered at the time how the fish were able to get enough to eat, all those I caught being well nourished.

Of all the ponds and pools in this section of the Falklands by far the most interesting was a small fresh water pool in the horse paddock at Shallow Bay, which had the advantage of being about a mile from the house, so I often went there collecting whenever I had an hour to spare. At first I could always be

certain of finding several species of teal there, but after a short time they became very scarce, so I had to go farther afield for game. This pool was in a marsh, and never exceeded more than fifteen yards in diameter, being separated from Reef Channel by a ridge of shingle. It is quite possible —though I never saw it—that during exceptionally high tides the sea may flow into this pool.

It was striking to notice the succession of crops—if one may use such a term—of microscopic forms which turned up in this pool. I began my collections here soon after our arrival at Shallow Bay—21 December 1910; and I was delighted to find this water then teeming with a species of Volvox. Mounted specimens have been sent to Kew Herbarium quite recently, and Miss Wakefield very kindly identified them as *Volvox aureus*, Ehr. By the end of that month the Volvox vanished and I never met them again. There were also present a few *Daphnia pulex*, *Chydorus sphæricus*, and one or two *Ceriodaphnia*—probably *C. Silvestrii*. This last named species has also been recorded from Patagonia by Daday. As time went on the volume of water present gradually decreased owing to the drought, so a rise of temperature took place—at least, during the daytime. The *Daphnia* increased but the others decreased in numbers, until towards the beginning of March the little water that was left contained nothing but *Daphnia*. Then came a heavy rainfall, and during April the *Ceriodaphnia* and the *Chydorus* increased in numbers, but the *Daphniæ* were scarce. Later, the camp became a quagmire and collecting—even in sea-boots—an impossibility.

Marine Algae of the West Falklands

My wife and I left Stanley one afternoon late in October 1909. We sailed in a small schooner once well known at Cowes; but her wings were now clipped, her sail area being greatly reduced to enable her to withstand the winds and seas of the Falklands.

On our way to our destination—the north-west corner of West Falkland—I was able to work a tow-net at frequent intervals and preserve my catches in formalin. We went south about, owing to the north-west wind. As far as Barren Island only copepods of various species were secured, and then quite suddenly we ran into shoals of gelatinous bodies. During our passage through Falkland Sound—and it took us the day to do it—no gelatinous bodies were bagged, but after passing through they again appeared in abundance. We arrived at Roy Cove the 1st of November, 1909, and found these organisms so abundant that a tow-net of bolting cloth could not be used. I wondered whether or not these organisms—so plentiful when we were off Speedwell Island—came from the region of Cape Horn, for it has long been known that a steady current flows from the westward. Certainly these rough observations seem to point to this.

On my return home specimens were sent to Sir John Murray; and on the 25th November, 1912, I received the following letter from him: . . .' Professor Gran writes about your tow-net samples . . . it contains mostly diatoms, three species of *Chætoceros* predominating (*C. debile*, a coarser form than the North Atlantic one; *C. convolutum*; and mucilage colonies of *C. sociale*). This last species has some likeness to *Phæocystis Poucheti* (Har.) Lagerh. = *Tetraspora Poucheti*, Hariot.'

'It seems from this', he continues, 'that the sample does not contain *Tetraspora*, and what we took

for *Tetraspora* is probably *Chætoceros sociale*. However, we have another small sample from you which seems to contain *Tetraspora* or *Phæocystis* and this we are now sending to Prof. Gran. It is labelled by you simply "*Tetraspores* from the Falklands." I will let you know when we hear further from Prof. Gran.'

On 16th of the following month Mr. Chumley kindly wrote me again as follows: 'Prof. Gran writes about your second sample of *Tetraspores*: "Many thanks for the sample with *Phæocystis*; it is the same species I have also found in Amundsen's Antarctic collection, but it is rather difficult to decide from conserved material if this antarctic species is the same as the arctic *Phæocystis Poucheti* (Har.) Lagerh. There may be small differences that could only be detected with fresh material."'

XX

INSECTA

With Notes by Professor E. B. Poulton, D.Sc., F.R.S., F.L.S.

So far as I am aware there is only a single butterfly at present living on these islands. Years ago a small blue butterfly was, I am told, fairly common. My wife, when a child, remembers it distinctly, but of recent years it has never been actually caught, although many persons report having seen . . . 'a small blue butterfly in the camp and on the flowers in cultivated land'. I made a special point of hunting for this rare insect and during my last visit spent many hours in sheltered corners of the camp and gardens, but I never saw one. I would suggest that the food plant of the larva has been exterminated by the sheep, hence its disappearance.

Brenthis (*Boloria*) *cytheris*, Drury, is then the only butterfly to be seen at present on the Falklands; it congregates in sheltered gardens round the settlements on the Western Island, where various species of flowering plants abound. I have never seen this species in the East Falklands, and Dr. Dale[1] only managed to capture a single specimen at Darwin. For some years I was inclined to imagine this single example had been blown by the prevailing westerly winds from the West Falklands. Quite recently, however, I have been informed by Dr. R. Wace, that the species is fairly common round Darwin settlement.

[1] Butler (Arthur G.), On a small collection of Lepidoptera from Darwin's Harbour, Falkland Islands (*Ann. and Mag. Nat. History*, Ser. 6, No. 69, September, 1893, p. 207).

I have now received specimens collected by Colonel A. M. Reid at this locality. One may ride for a whole day over the undulating moors on the West Falklands and never see more than two or three specimens of this species. These butterflies seem to be attracted to the gardens, and the common introduced pansy appears to be the most attractive flower, for they literally swarm round these flowers when it is fine and warm. When the sun is shining, the wings are fully expanded and the whole insect seems to spread itself out to absorb as much as possible of the solar heat. I have often wondered how such an apparently delicate insect manages to exist in such a wind-swept locality. The moment the sun is covered by a drifting cloud, *B. cytheris* at once closes its wings and descends to the roots of the herbage apparently for warmth, leaving its shelter when the warm rays return. The first of this species was seen 7th November 1909 at 11 a.m., temperature of air 58° F., wind N. light. The last specimen was seen so late in the season as 15th March 1910, temp. of air 49° F., wind S. These facts show that *B. cytheris* is hardy, as we should expect from its occurrence in Tierra del Fuego and the south of Patagonia.

Professor E. B. Poulton remarks :

'Mr. Vallentin's fine series of this species includes 22 males and 27 females. Among the latter is an interesting variety with reduced black markings on the upper surface of the hind wing, the inner submarginal row of spots, usually very distinct, being vestigial. The ground-colour is also of a deeper tint, giving to the insect a darker appearance in spite of the reduction of the markings. The collection also contains 14 examples collected on the East Island at or near Darwin by Col. A. M. Reid, October 1908–February 1909.

'A single specimen of the wide-ranging American species *Pyrameis carye*, Hübner, from Shallow Bay, found the 27th December 1910, was doubtless a straggler from the mainland.'

Moths

Having spent four summers in the Falklands I have been able to make a fairly representative collection during these visits. Round Stanley moths are not abundant, and during the two summers I lived there, I did not make a very extensive collection. In the north-west corner of the West Falklands, where the climate is certainly milder, I made large collections, doing exceptionally well at Shallow Bay, where the high range of hills at the back of the settlement effectually sheltered us from the cold antarctic winds. In addition to this shelter there was a very deep valley below the house where the kitchen garden was located, and here I managed to secure a greater variety of insects than elsewhere on the whole archipelago. Running down the centre of this valley was a small stream, which in the course of ages had cut a deep trench through the soil ; and on its banks the common introduced English fox-glove (*Digitalis purpurea*) abounded. Here during the summer evenings moths at various times literally swarmed, and it was often half past ten at night before I gave up collecting. By far the best time for collecting was during a calm, or when the wind was westerly or inclined to veer to the southward. This seemed to drive moths from the surrounding camp into this sheltered valley to the flowering fox-gloves and pansies.

A few yards to the southward of the boundary fence of the garden, and growing in a swamp, was a large coast currant-bush (*Ribes antarcticus ?*) some ten feet or more in height, and as it was especially attractive to *Feltia clerica*, I often spent some time on the lee side of this shrub net in hand and caught numbers of this species as they flew round. There was always a ' nip ' in the air during these evenings, the thermometer registering usually 50° F.

At the close of the so-called summer, i.e. the end of February, all the moths were scarce. I also spent many evenings moth-catching in the surrounding camp, but only managed to get an occasional specimen ; and even round the Fâchima bushes, when in full flower, but few specimens were to be seen. Veronica bushes, when in flower were fairly attractive to moths : but in no instance could such quantities be secured as at the flowering fox-glove and pansies.

One species, *Episilia ochricraspia*, I never actually caught living. Outside our work-room was a water-butt, and in it was occasionally found a dead specimen when we started to work in the morning. Why this species should develop such suicidal tendencies I cannot explain.

Like Dr. Dale I failed to meet with any specimens of either *Sphinges* or *Bombyces*. Sugaring was tried, but it was never successful.

Included with my specimens are a few moths which were collected on the East Falkland by Colonel A. M. Reid during 1908–9 ; he very kindly passed them on to me some years ago. Finally I wish to thank Professor E. B. Poulton for revising my notes and also for writing the following Report on my collection.

INSECTA

By Edward B. Poulton, D.Sc., F.R.S., F.L.S.

(Hope Professor of Zoology in the University of Oxford)

By far the greater number of specimens in Mr. Vallentin's collection were taken by him or his wife at or near Shallow Bay, at the north-west corner of West Falkland Island, between Oct. 9, 1910 and March 1911. These *data* are to be understood for all specimens for which no locality is mentioned. Specimens

labelled 'Darwin' were collected by Col. A. M. Reid between Oct. 1908 and February 1909, at or near this locality, which is about 50 miles SW. of Stanley to the north-east of East Falkland Island. Specimens labelled 'Stanley' were collected by Mr. Vallentin in 1902. Nearly the whole of this last collection is now in the British Museum. The moths are recorded in Sir George Hampson's Catalogue; the Diptera in Major Austen's paper referred to below.

In preparing the following list I have received much kind help from eminent specialists in the various groups. Some of these are mentioned below, and with them I wish to thank Mr. G. E. Bryant, Mr. J. H. Durrant, Mr. B. P. Uvarov, and Dr. J. Waterston, D.Sc.; also Commander J. J. Walker, M.A., and Mr. A. H. Hamm for kindly referring to the collection at a time when I could not consult it.

The specimens recorded below have been kindly presented by Mr. Vallentin to the Hope Department in the Oxford University Museum, where they can be studied.

ORTHOPTERA

TETTIGONIIDAE (*LOCUSTIDAE*).

Raphidophorinae.

1. *Parudenus falklandicus*, Enderl.: 3 examples[1]—Carcass Id., W. Falkland. Collected by Mrs. Hansen, February, 1911. Mr. Vallentin believes that the species is confined to this island.

NEUROPTERA

PHRYGANIDAE.

One specimen of a Phryganid in poor condition.

[1] Contracted to 'ex.' below.

HYMENOPTERA PARASITICA

ICHNEUMONIDAE.

Ophioninae.

1. *Ophion occidentalis*, Morley: 8 ex., 'caught in sitting-room during the depth of winter. This insect, known as the Falkland Island "Crane fly", is attracted to the lamp,' just as species of *Ophion* are in England. The larvae are doubtless parasitic on Noctuid larvae.
   O. larseni, Enderl. is a synonym.
2. Two specimens of an Ichneumonid in poor condition—undetermined.

COLEOPTERA

In addition to the Coleoptera in the following list the large Prionid Longicorn *Microplophorus magellanicus*, Blanch., is represented by two examples from W. and E. Falkland (1902).

This Chilean and Magellanic species could not maintain itself on the treeless Falklands, but Mr. Vallentin informs me that it is fairly common on both islands, being bred from larvae in imported timber. He has obtained larvae from old posts. The perfect insect is very difficult to catch.

In the determination of Coleoptera I have received the kind help of Mr. G. C. Champion, whose paper in the *Annals and Magazine of Natural History*, Ser. 9, vol. i (1918), p. 167, is here followed.

CARABIDAE.

1. *Lissopterus quadrinotatus*, G. R. Waterh., var.: 5 ex.

DYTISCIDAE.

2. *Lancetes flavoscutatus*, Enderl.: 5 ex.

STAPHYLINIDAE.

3. *Quedius mesomelinus*, Marsh. : 1 ex.

TENEBRIONIDAE.

SCOTOBIINAE

4. *Emmallodera obesa*, Guér. : 8 ex. Kindly determined by Mr. K. G. Blair.

PYTHIDAE.

5. *Poophylax falklandica*, Champ. : 1 ex. ; 4 ex.—Stanley, 1902.

CURCULIONIDAE.

6. *Listroderes compressiventris*, Enderl. ; 12 ex.
7. *Listroderes bracteatus*, Enderl. : 9 ex.
8. *Listroderes salebrosus*, Enderl. : 1 ex.
9. *Reichertia exsculpticollis*, Enderl. : 1 ex.

LEPIDOPTERA

The single butterfly has been already spoken of. In determining the moths I have received the kind help of Sir George Hampson and Mr. W. H. T. Tams.

NOCTUIDAE.

AGROTINAE.

1. *Euxoa hispidula*, Guér. : A fine series of 63 males and 29 females from W. Falkland exhibits well, when arranged according to sex, the slight but distinct colour differences ; the females having darker hind wings and darker, greyer fore wings as compared with the paler brownish tint of the males, on which the patterns stand out far more prominently.
In addition to the above, 2 ex.—Darwin.

2. *Euxoa falclandica*, Hampson: 2 (Feb. 2nd 1911); 1 ex.—Darwin.

3. *Feltia clerica*, Butl., var. *punta-arenae*, Staud.: A fine series of 56 males and 30 females from W. Falkland. The only obvious difference between the sexes is to be seen in the darker hind wings of the females. 'Abundant all the summer on foxglove, veronica bushes, and coast currant bushes.' 5 males, 2 females—Stanley. In addition 4 ex.—Darwin.

4. *Feltia malefida*, Guén.: 16 males, 3 females; 2 males, 3 females—Stanley; 2 ex.—Darwin. The sexes differ very much as do those of *E. hispidula*.

5. *Episilia ochricraspia*, Hampson: 5 males: 'all floating on water, one in the water-butt, the others in sheep-dip: Feb. 1911.' One male—Darwin. This species is next to *flavicosta*, Wllgrn.

6. *Episilia xanthostola*, Mab.: 6 males, 1 female: 'all caught in camp during January and February—a strong flier.'
1 male, 1 female—Darwin.

7. *Lycophotia falclandica*, Hampson: 22 males, 8 females: a very inconstant species, one variety of which seems to have been described as *Euxoa irioleuca* by Sir George Hampson (Nov. Zool., xxv, p. 110, 1918). Mr. Vallentin's series strongly suggests that only a single variable species is present.

8. *Lycophotia ignicola*, Staud.: 2 males; 1 male, 1 female—Darwin.

HADENINAE.

9. *Cirphis falclandica*, Butl.: 1 ex.—Stanley; 1 ex.—Darwin.

CUCULLIANAE.

10. *Copitarsia consueta*, Walk. : 1 female; 1 female—Darwin.

GEOMETRIDAE.

LARENTIANAE.

11. *Eupithecia anguligera*, Butl. : 4 ex.—Stanley; 1 ex.—Darwin. The E. Falkland specimen had been named *E. antarctica*, Staud., in the British Museum, but Mr. L. B. Prout kindly informs me that he can see no reason for recognizing two species in the variable *Eupithecia* from the Falkland Islands.

PYRALIDAE.

CRAMBINAE.

12. *Crambus falclandicellus*, Hampson : 8 ex.—Stanley; 1 ex.—Darwin.

SCOPARIANAE.

13. *Scoparia glauculalis*, Hampson : 1 ex.—Stanley; 1 ex.—Darwin.

TINEIDAE.

14. *Tinea galeatella*, Mab. : 2 ex.—Darwin.

DIPTERA

The Diptera collected by Mr. Vallentin form the subject of a paper by Major E. E. Austen, D.S.O., in *Ann. and Mag. Nat. Hist.*, Ser. 8, vol. xii, Nov. 1913, pp. 498–504. The forms referred to in this paper exist in the collection of the British Museum. The remainder of the material, now in the Oxford University Museum, is shown in the following list, prepared with the kind help of Major Austen. Two of the forms—*Melanostoma* sp. and *Urellia* sp.—were absent from the collection previously worked out by him.

DOLICHOPODIDAE.

1. *Hydrophorus* sp. : 1 ex.

SYRPHIDAE.

SYRPHINAE.

2. *Melanostoma bertrandi*, Aust. : 1 ex.—Stanley.
3. *Melanostoma* sp. : 1 ex.—Stanley.

TACHINIDAE.

CALLIPHORINAE.

4. *Calliphora erythrocephala*, Meig. : 7 ex., known as the 'Blue-bottle' in the Falkland Islands, as it is here. It probably breeds in dead sheep or in offal.

DRYOMYZIDAE.

5. *Pezomyia moseleyi*, Aust. : 1 large male, 1 small female.

TRYPETIDAE.

TRYPETINAE.

6. *Urellia* sp., near *stellata* Fuessl. : 1 female.

HEMIPTERA

REDUVIIDAE.

1. *Nabis* sp. A single specimen in poor condition.

XXI

BRYOZOA

I HAVE been unable to discover many references to the *Bryozoa* of the Falklands. During the early part of the last century both Darwin and Hooker made extensive collections with their usual thoroughness. The results of these and earlier collectors are recorded by G. Busk.[1] The *Challenger* collections made later, chiefly in Stanley Harbour and Port William, were also most important, several new species being discovered. In recent years Miss Edith M. Pratt has contributed a paper [2] to the Manchester Literary and Philosophical Society on this group, the material being collected at Hill Cove, West Falklands, during the months of September and October 1896. This material was supplemented with additional specimens found growing on the shells of various marine molluscs gathered at Lively Island, off East Falkland.

My own collections, made during my three visits to this archipelago, were mostly preserved in a living condition ; so I have been able to make a close microscopical examination of them.

In some instances, however, they have been collected during, or following, a winter's gale, when heaps of kelp, torn from the ocean's bed, have been flung on the beach. These specimens have always been in a more or less damaged state, but in the majority of cases identification has been possible.

[1] Busk (George, F.R.S.), *Catalogue of the Marine Polyzoa* (British Museum, vols. i–iii).

[2] Pratt (Edith, M., B.Sc. Vict.), Contribution to our knowledge of the Marine Fauna of the Falkland Islands. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society*, vol. xlii, Part V, No. 13. (Session 1897–8.)

Being unable to find any one who would work out my collection I have undertaken the task myself, rather than have the material lost.

According to my investigations there are not many species of *Bryozoa* to be found along the shores of this archipelago, but what is wanting in variety is made up in numbers: they abound everywhere on every submerged object. Those specimens gathered in the numerous fiords are usually in a perfect state owing to the sheltered position in which they have grown, and thus identification has been comparatively easy. It is chiefly from these specimens that the following list is made.

Ætea fuegensis, Jullien. Examples of this species occur very sparingly on various species of red sea-weeds flourishing in Stanley Harbour in 2–3 fathoms of water. I have never found this species elsewhere.

Eucratea chelata, Linn. A form very similar to our English species is comparatively abundant on the various Hydroids all round the islands. In no instance, however, did I find any growths so fine as those at St. Ives, Cornwall.

Three species of *Menipea* occur very sparingly round this archipelago. The first species *M. aculeata*, Busk, was washed ashore during a heavy southerly gale in Port Stephens. This extremely beautiful species was growing in profusion on a stem of *Macrocystis pyrifera*, and the Zoaria being ivory white in colour were most attractive. A single Zoarium measures from 3–3½ cm. in height.

M. fuegensis, Busk, occurs very sparingly on the shells of *Lamellaria patagonica*, Smith., found living on the stems of *Lessoniae* washed ashore during southerly gales along King George's Sound, West Falklands. I have never met with this species within tidal limits.

M. patagonica, Busk, a few small growths were

detected on various species of Hydroids washed in from deep water along the shores of the above-mentioned Sound.

Salicornaria malvinensis, Busk. A single zoarium of this species was found at extreme low-water mark one spring tide at Rapid Point. Another specimen was dredged at Whaler Bay in three fathoms of water. I have also dredged this species at the same depth in Stanley Harbour.

Carbasea ovoidea, Busk. Somewhere in the deep water off West Point Island, West Falklands, there must be vast quantities of this species. I have only found it round the shores of that island, intermingled with kelp, after heavy westerly gales. Naturally all my specimens were obtained in a more or less battered state, but I think my identification is correct, seeing it was obtained by the *Challenger* in Port William; but I have never found it there.

Diachoris magellanica, Busk. Found living in Stanley Harbour, E. Falklands and also in Whaler Bay, W. Falklands. In both instances they were found growing on the fronds of semi-decayed *Macrocystis* in 3–4 fathoms of water. This species is also occasionally found on the carapace of the kelp crab, *Eurypodius latreillei*.

Diachoris costata, Busk. Found once only growing on a shell of *Modiolarca trapezina* washed on shore from deep water during a gale at King George's Sound.

Membranipora membranacea, Linn. According to my investigations this species is only to be found occasionally growing on the stems and fronds of *Macrocystis* in four fathoms in Stanley Harbour. The larva, *Cyphonautes*, was very scarce in my tow-net gatherings; one being detected in a gathering made the end of December 1901, and another single specimen the middle of the following February, 1902.

Microporella ciliata, var. *personata*, Busk. This

species appears to have been first discovered by Darwin on the East Falklands. I have found it fairly common round the archipelago on red sea-weeds from deep water, and also on shells and stones, within tidal limits in the numerous fiords.

M. impressa, Audouin. This cosmopolitan species is common on stones and shells from between tide-marks to deep water.

M. malusii, Audouin. Another species with a world-wide distribution, and found in similar localities as the preceding species.

Schizoporella hyalina, Linn. Common on stones and shells of *Mytilus edulis* in Stanley Harbour and also in the numerous fiords throughout the archipelago.

Hippothoa divaricata, var. *personata*, Busk. Found on a frond of *Macrocystis* washed in from deep water during a gale.

A single magnificent growth of *Crisia Edwardsiana*, D'Orb., was picked up on the south shore of Shallow Bay after the storm of the 18th December, 1910.

Tubulipora phalangea, Couch. *T. flabellaris*, Johnst. Occurs sparingly in Stanley Harbour; very abundant at Whaler Bay, West Falklands, in four fathoms, on the fronds of *Macrocystis*.

I have been fortunate enough to secure several specimens of two species of *Eudoprocta*, viz. *Barentsia capitata*, and *Pedicellina Australis*, Ridley. Both species were found in Stanley Harbour on the fronds of *Macrocystis* in about three fathoms of water.

Being in doubt as to the identity of the first-named species, I sent a mounted slide to Sir S. F. Harmer, who very kindly wrote me as follows: . . . 'it would be best to refer the specimens to *Barentsia capitata*, although this species may be a gigantic form of *B. gracilis* . . . Your specimens appear to have a total length of about 1·6 to 1·7 mm.'

Pedicellina Australis, Ridley. So far as I have been able to discover, this species was first figured and described by Mr. S. O. Ridley from specimens collected during the surveying voyage of H.M.S. *Alert* during the years 1878–82. In 1888 Jullien also figured and described the same species. My specimens agree in most points with Mr. Ridley's description, and as many of them were killed in an expanded condition, I am able to settle one doubtful point, viz.: the number of tentacles present. I find they vary in number from 14–16, the last number being usually present.

XXII

SEAWEEDS

Under the euphonious name of 'Kelp' are included two species of *Lessoniae*, two of *Durvilleæ*, and a single *Macrocystis*. The *Lessoniæ* with the Macrocystis inhabit the deeper waters, while the *Durvilleæ* fringe the rock-bound shores of the ocean, forming a serious obstacle to any one who may have to swim for his life. The long fronds wrap themselves round the swimmer's limbs, and, clinging to him, exhaust him.

The largest bed of *Lessoniæ* known to me is to the southward of Cape Pembroke. Roughly speaking, it extends from beyond low-water mark to the region of the Wolf rock, a distance of over two miles in a straight line. During a southerly gale the breakers come dashing in and bring with them vast quantities of these and other seaweeds. Once, years ago, I found on shore after one of these gales a heap of kelp piled up about high-water mark. It measured roughly 250 yards in length, fifteen feet in depth, and was six feet high. There were many similar heaps of weed along the shore, but this one filled a cove from end to end. On examination I found this heap to consist almost entirely of *Lessoniae* and *Macrocystis*, *Durvilleæ* being scarce. At the height of this gale might be seen a slimy ooze spread over the surface of the sea. This was derived from the broken fronds, and had an appreciable effect over the surface of the sea, like 'oil on troubled waters'. This secretion may be found on breaking a fresh frond of any of the above-mentioned seaweeds, but it is most noticeable in *Macrocystis pyrifera*—the true kelp, or 'basket kelp',

of the sub-antarctic region. The root of this interesting seaweed is a matted tangle of fibres resembling very much the cane fenders used on board ship in the east. These roots vary in size from a foot to twelve feet in circumference. From this tangled mass one or more shoots arise, which give off at almost equal distances a single frond, with a spherical or pear-shaped vessel at its base, the whole being about twelve inches in length. These fronds are derived from the main stem by a process of vertical splitting; they soon reach the surface and, as they trail along, indicate clearly to the mariner the direction of the current.

In Stanley Harbour, where, in great patches, this weed luxuriates, it forms such a dense mass that I have often experienced great difficulty in forcing my boat through it during low water. Frequently, when out collecting in my dinghy, I have comfortably ridden out a heavy squall by making fast the bows to a substantial growth of seaweed.

Most of the roots of *Macrocystis* are attached to rocks or stones of varying sizes, but in many of the protected fiords they seem to grow freely on the muddy bottom. In the interstices of these tangled roots hosts of forms lie hidden, and one or more specimens of the fish *Lycodes* can nearly always be found therein. A list of the inhabitants of one of these roots would include the names of almost all the invertebrates found round these islands; while on the fronds abound hydroids and bryozoa of various kinds. Here the delicate *Hypanthea* delights, with its silvery, creeping root, to outline the corrugations which run lengthwise along each frond. This species is most abundant on those fronds which float freely along the surface of the sea; and with these is invariably found the attractive though diminutive nudibranch *Cratena Valentini*.[1]

[1] Eliot (Sir C. N. E.), 'Nudibranchs from New Zealand and the

Some years ago I directed attention to the dispersal of marine shells and animals by means of seaweeds.[1] These observations were made on the seaweeds of the south-western shores of England. It was not until I had spent some time in the Falklands that I realized what a great influence *Macrocystis pyrifera* had on the dispersal of the invertebrate fauna in these sub-antarctic regions.

During my three visits to these islands I have always kept a sharp look out for drifting *Macrocystis* after leaving Montevideo, and have seen some drifting northward from 200 to 275 miles from the Falklands. In my opinion the great similarity which at present exists between the littoral fauna of the South American continent, the Falklands, and the many islands which lie scattered in the South Atlantic Ocean is due chiefly to the drifting *Macrocystis*, and not to a previous land connexion.

I have already said that heaps of seaweeds are to be found along the shores and in the creeks after an onshore gale—swept thither from the deeper waters by the terrific waves. As the wind never blows for long from the same direction these heaps of seaweed are soon swept away and start on an ocean trip of greater or less extent. In some of the sheltered creeks of Roy Cove and Crooked Inlet, for instance, piles of seaweeds remain perhaps for weeks, and a rapid decay ensues. This mass of rotten weed has a marked effect on the littoral fauna. The common limpet—*Patella ænea*—seemed to be most susceptible to the decaying influence of these seaweeds; as were also the two common species of oyster catcher—*Hæmatopus*

Falkland Islands' (*Proceedings of the Malacological Society*, vol. vii, Pt. 6, September, 1907, p. 352).

[1] Vallentin (Rupert), 'Some Remarks on the Dispersal of Marine Animals by means of Seaweeds' (*Annals and Magazine of Natural History*, 6th series, vol. xvi, pp. 418–23, November, 1895).

leucopus and *H. ater*; for I always found several of both species busily engaged, during the ebbing tide, in dislodging and devouring these sickly molluscs.

Worms of various species, and crustacea, would crawl from the crevices in the rocks; and my collections—especially in the higher littoral regions—were greatly enriched by these means.

Observers are by no means unanimous on the length to which this weed may attain. Unquestionably the finest growths are to be found in the many sheltered creeks and fiords of the islands. According to Hooker examples found in Christmas Harbour, Kerguelen Island, were estimated to be over 300 feet in length; but, later, isolated stems of *Macrocystis* 700 feet long were seen between two of the largest islands.

The water of Falkland Sound is usually fairly smooth, the passage being about 60 miles in length. One fine day towards the end of November it happened that the steamer on which I was a passenger arrived off Swan Island just about slack water, and we steamed through a luxuriant bed of kelp. According to the Admiralty chart the depth of water here is about 16 fathoms. Our steamer was 70 feet long. Several specimens of *Macrocystis* were detected floating on the sea quite three times the length of our vessel; so that the length of a single plant would average between 150 and 170 feet. The longest stranded specimen was found on Port North beach after a heavy gale. The root measured exactly 36 inches in diameter, and the total length when stretched out along the shore was 195 feet. Leaning over the ship's bows I could see vigorous growths of that charming hydroid *Hypanthea hemisphærica* almost covering the seaweed's fronds; but our pace—ten knots—was not conducive to accurate observation. Growths of the same seaweed almost equalling these in length are to

be found in the neighbourhood of West Point Pass and Tamar Pass; and the hydroids in both places are certainly more luxuriant.

The next most attractive seaweeds are the *Durvilleæ*, two species of which are abundant on the rocks fringing the ocean. So far as I am aware neither kind frequents the estuaries or harbours where the sea-water varies in salineness; it flourishes only where the sea-water is absolutely pure. *Durvillea Harveyi* obtains a firm hold on the rocks by means of a broad disk. The stem is always short, but the fronds resemble huge irregularly shaped pieces of leather, dark green in colour. The most remarkable thing about this seaweed is a kind of ball-and-socket arrangement at the junction of the stem with the root; and this enables the great fronds to swing to and fro in the sea without injury.

Although this alga grows in depths where it is never dry, Hydroids, Bryozoa, or Nudibranchs are hardly ever found on the fronds; though, occasionally, a few of the first-named may be secured from the disk-like root. The largest growth of this weed that my wife and I ever found came ashore on King George's Sound one midwinter, in July of 1910. Our combined efforts failed to free the weed, I therefore made fast my horse to the stem, and so managed to wrench it away from the tangled mass in which it was embedded. The fronds when spread out measured 15 × 12 feet, and the short stem 8½ inches in circumference—a gigantic specimen.

Frequently intermingled with this weed, but usually growing at a slightly lower level, *Durvillea antarctica*, Hariot, also abounds; its long finger-like fronds swaying about in the sea in a snake-like manner. When spread out on a rock above high-water mark the fronds assume a spherical outline under the sun's rays, and, losing their green colour, assume a saffron

hue. I have been told that in some parts of South America the natives cut these dead fronds into lengths, and, with the cellular divisions removed, and the ends closed, excellent water-bottles are formed.

Another beautiful seaweed, usually to be found in deep water, is known as the ' tree-fern kelp '—*Desmarestia Rossii*. According to Sir Joseph Hooker this species is plentiful on the Falklands. I found it very scarce, only once seeing it growing on the rocks near Fox Bay at extreme low-water mark. I had long been searching for specimens of it to add to our collections, when one day I suddenly detected some fine specimens just awash in a deep gully. Watching for a favourable opportunity between the waves I managed to gather some. This is the only occasion I ever found it growing, although I have, on several occasions, gathered it along the shores.

Three species of *Lessoniæ* are recognized as occurring in these regions: *Lessonia nigrescens*, *L. flavicans*, and *L. frutescens*. Of these three *L. flavicans* is the most common, extending in some cases into quite deep water. As it is usually quite submerged its fronds are generally covered with Hydroids and Bryozoa of various kinds. When drifting over a bed of it in a boat and using a water-glass, one is amazed at the vast amount of life which exists on the fronds and stems of this and other seaweeds.

The remaining seaweeds, of which there are a great number, have already been minutely examined and reported on by Mr. A. D. Cotton.[1] It is therefore unnecessary to say more about them here.

[1] Cotton (A. D., F.L.S.), ' Cryptogams from the Falkland Islands, collected by Mrs. Vallentin,' Plates iv–x (*Journal of the Linnean Society*, vol. xliii, Botany No. 290, 1915–17, pp. 137–231).

APPENDIX

CONSTITUTION

The government of the colony is administered by a governor, aided by an executive council composed of three official members and one unofficial, and a legislative council composed of three official and two unofficial members. The unofficial members of the councils are appointed by warrant under the Royal Sign Manual and Signet for a term not exceeding five years.

STATISTICS

FINANCE. TRADE. INDUSTRIES. POPULATION. EDUCATION

GOVERNMENT FINANCE [1]

Year.	*Revenue.* £ s. d.	*Expenditure.* £ s. d.
1846	—	2,080 0 0
1848	—	2,836 10 0
1850	4,107 10 0 (Parliamentary grant)	—
1854	4,017 2 1	—
1858	4,826 0 0	—
	3,426 0 0 Parl. grant 1,400 0 0 Colonial revenue	
1859	4,883 0 0	—
	4,067 0 0 Parl. grant 816 0 0 Colonial revenue	
1862	3,435 0 0 (Parl. grant)	—
1875	4,133 0 0	10,163 0 0
1876	3,194 0 0	8,119 0 0
1877	3,286 0 0	6,266 0 0

[1] For the first few years the revenue and expenditure returns are given somewhat irregularly. They will be given as they occur in the earlier annual reports until 1880, after which they will be given for every three or four years.

GOVERNMENT FINANCE (*continued*)

Year.	*Revenue.* £	*s.*	*d.*	*Expenditure.* £	*s.*	*d.*
1878	3,838	0	0	6,364	0	0
1879	5,022	0	0	6,583	0	0
1880	5,519	0	0	5,607	6	0
1883	7,337	0	8¼	8,728	17	10¾
1887	8,963	5	3	9,128	9	11
1890	9,492	12	2	9,456	17	11
1893	11,450	0	0	11,388	0	0
1896	12,358	0	0	13,569	0	0
1899	13,219	0	0	13,479	0	0
1902	16,070	0	0	14,789	0	0
1905	28,819	0	0	15,275	0	0
1908	23,874	0	0	20,369	0	0
1911	36,145	0	0	23,407	0	0
1914	33,760	0	0	31,543	0	0
1917	36,491	0	0	28,480	0	0
1922	44,743	0	0	38,452	0	0

TRADE [1]

Year.	*Imports.* £	*s.*	*d.*	*Exports.* £	*s.*	*d.*
1848	9,760	0	0	2,660	0	0
1850	10,520	0	0	1,560	0	0
1854	21,100	0	0	18,600	0	0
1856	11,300	0	0	11,800	0	0
1859	13,890	0	0	6,892	0	0
1860	26,697	0	0	5,910	0	0
1863	28,658	0	0	18,415	0	0
1866	20,498	0	0	21,780	0	0
1869	18,172	0	0	19,184	0	0
1872	24,441	0	0	31,435	0	0
1875	42,460	0	0	38,987	0	0
1878	36,792	0	0	51,055	0	0
1881	40,443	0	0	87,914	0	0
1884	67,848	0	0	101,338	0	0
1887	66,785	0	0	107,995	0	0
1890	67,182	0	0	115,845	0	0
1893	71,126	0	0	134,872	0	0
1896	69,985	0	0	132,194	0	0
1899	73,978	0	0	132,203	0	0
1902	63,851	0	0	90,838	0	0
1905	58,155	0	0	167,450	0	0
1908	73,062	0	0	189,972	0	0
1911	93,913	0	0	471,156	0	0
1920	210,002	0	0	350,295	0	0
1922	112,298	0	0	103,622	0	0

[1] After 1860 trade and shipping returns will be given for every three years only.

SHIPPING RETURNS

Year.	Total tonnage.	Vessels entered.	Vessels cleared.
1851	17,538	—	—
1852	22,024	—	43
1854	—	43 (37 British, 2 Hanoverians, 2 Danish, 1 Hamburg, 1 Norwegian)	—
1855	—	53 (40 British)	—
1856	—	33	33
1859	—	53	—
1862	—	63	—
1864	—	60	66
1866	—	70	61
1869	—	54	52
1871	20,802 [1]	54	—
1874	15,978 [1]	47	—
1877	11,415 [1]	—	—
1880	20,475 [1]	—	—
1883	14,238 [1]	23	—
1885	11,353	21	—
1888	8,132	21	—
1891	44,415	43 (26 sailing, 17 steam)	—
1895	27,986	15	15
1898	124,147	46 (33 steam)	44 (33 steam)
1901	193,889	44 (33 steam)	41 (32 steam)
1904	237,142	60 (37 steam)	59 (37 steam)
1907	293,428	66 (50 steam)	69 (53 steam)
1910 [2]	325,583	72 (58 steam)	57 (45 steam)
1914 [3]	252,829	130 (119 steam)	(Tonnage and number of outward vessels not given)
1916	253,454	124 (103 steam) [4]	Ditto
1922	89,818	50 (Of these 15 were British. All were steamships.)	Ditto

[1] Tonnage of vessels entered only.

[2] Stanley is a port of registry, and at the close of 1910 there were six vessels on the register, with a total tonnage of 393 tons.

[3] Port Stanley was visited by 13 war-ships.

[4] The 21 sailing vessels and 47 of the steam were entered in South Georgia.

Year.	Cattle. Wild.	Cattle. Tame.	Horses. Wild.	Horses. Tame.	Sheep.	Wool exported.	Tallow.	Sheep-skins.	Live sheep.	Frozen carcases.	Hides.	
	Approx. no.		Approx. no.		No.	lb.	Value. £	Value. £	Value. £	Value. £	No.	Value. £
1846	60,000	400	3,000	120	—	—	—	—	—	—	—	—
1847	80,000	400	4,000	—	78	—	—	—	—	—	—	—
1851	60,000	4,000	3,000	1,000	1,000	—	—	—	—	—	6,000	—
1854	50,000	800	3,000	1,200	2,500	—	—	—	—	—	—	—
1858	50,000	800	3,000	1,200	7,650	—	—	—	—	—	—	—
1861	9,000	19,338	3,000	1,200	11,550	—	—	—	—	—	—	—
1863	9,000	19,338	3,000	1,200	19,300	—	—	—	—	—	2,170	2,180
1865	12,000	20,216	—	—	26,605	—	—	—	—	—	—	—
1868	5,000	24,570	300	1,090	57,735	—	—	—	—	—	—	—
	Wild & tame.		*Wild & tame.*									
1871	13,390		1,504		64,675	248,800	10,300	—	—	—	—	—
1875	13,390		1,504		185,400	735,902	28,472	3,006	—	—	—	—
1878	13,390		1,504		312,300	1,253,249	35,732	4,874	—	—	—	—
1880	—		—		435,700	—	68,327	6,760	2,144	—	—	—
1884	11,569		2,270		473,227	—	74,652	13,314	5,686	2,720	—	4,242
1886	—		—		—	—	72,998	3,640	3,813	10,949	30,000	—
1891	—		—		—	3,885,210	105,225	3,200	8,584	1,893	18,277	—
1893	8,192		3,294		770,000	3,885,194	—	1,980	16,430	1,343	11,681	—
1896	6,850		3,250		791,442	4,187,628	112,139	5,305	11,431	1,008	—	—
1901	—		—		762,357	4,373,340	89,029	4,666	9,366	100	—	—
1904	—		—		702,444	4,259,420	115,359	520[1]	9,369	18	—	263	298
	Tame		*Tame*								*Canned meat.* Cases.	Value. £	
1908	—		—		688,705	4,401,089	110,186	6,298	12,095	611	—	—	569	503
1911	7,859		3,554		706,170	4,643,781	150,134	8,830	16,853	419	1,335	1,335	1,027	931
1915	—		—		690,575	4,670,255	188,541	3,679	17,818	3,327	3,111	5,841	—	—
1918	7,250		3,250		669,996	4,809,539	294,310	—	26,888	157	5,662	13,986	—	—
1921	7,674		3,497		667,677	4,234,665	124,155	909	2,009	—	—	—	—	—

[1] A large quantity of tallow remained unexported at the end of the year.

SEALING

Year.	Sealskins *Quantity.*	*Value.* £	*Seal oil.*
1849	{ 1,046 (hair) / 37 (fur) }	—	140 gallons
			Value.
1878	—	1,213	£1,312 (seal and penguin oil)
1879	—	1,400	£1,200 ,, ,, ,,
1881	—	968	£125 ,, ,, ,,
1884	—	191	—
1888	—	388	—
1894	651	720	—
1896	727	1,000	—
1901	900	1,800	—
1904	103 [1]	151	—
1906	325	258	—
1908	881	1,733	—
1910	170	170	—
1911	960	3,732	—
1922	Sealing operations in the Dependencies yielded 2,713 barrels of oil as compared with 2,401 barrels collected in the previous year.		

POPULATION [2]

Year.	*Estimated total population.*	*Analysis.*	*Births.*	*Marriages.*	*Deaths.*
1846	155	108 males, 31 females, 3 coloured (males), 14 aliens.	5	1	3
1849	415	186 males, 125 females, 104 aliens.	5	3	4
1853	540	—	20	1	8
1856	480	—	12	7	6
1859	539	Township of Stanley, 459; Patagonian mission on Keppel Island, 24.	26	3	13
1863	592	Stanley, 482; Darwin Harbour, 67; Keppel Island, 7; New Island, 3; Pebble Island, 4; Port Salvador, 8; Port Louis, 6; Port San Carlos, 6; other farms, 9.	17	6	10
1867	686	—	24	6	18

[1] And over 17,000 pelagic sealskins imported for export.

[2] Until 1880, when statistics are easily available, the estimated population will be given for about every three years; after 1880 briefly for every ten years.

POPULATION (*continued*)

Year.	*Estimated total population.*	*Analysis.*	*Births.*	*Marriages.*	*Deaths.*
1870	811	Stanley, 497; Darwin and out-stations of F.I. Co., 187; Keppel Island, 22; Pebble Island, Bluff Cove and Port Stephens, 33; Port Salvador, and adjacent stations not included in above, 34.	30	8	13
1875	1,102	—	60	7	9
1880	1,497	—	—	—	—

Year.	*Estimated total population (census returns).*	*Analysis.*
1881	1,553	—
1891	1,789	1,086 males, 703 females.
1901	2,043	1,203 males, 840 females.
1911	3,275 [1]	2,370 males, 905 females.
1921	2,087	1,182 males, 905 females.

The first statement relative to the condition of the population of the West Falklands was drawn up by the Assistant Colonial Surgeon at Fox Bay in 1887; part of it is reproduced here.

East Fox Bay .	Population 29	Three houses at the settlement; 4 detached shepherds' houses.
West Fox Bay .	Population 20	Two houses at the settlement; three detached houses.
Spring Point . .	Population 10	Two houses at the settlement; two detached houses.
Weddell Island .	Population 15	Two houses at the settlement.
Beaver Island .	Population 17	Three houses.
New Island and Carcass Island	*No particulars received.*	
Port Stephens .	Population 39	Four houses at the settlement; eight detached.
Chartres River .	Population 19	Two houses at the settlement; two detached.
Roy Cove. . .	Population 53	Four houses at the settlement; four detached houses.

[1] This return includes the population of South Georgia, about 1,200.

Hill Cove and Shallow Bay	Population 41	Six houses at the settlement; three detached.
Saunders Island .	Population 15	Four houses.
Keppel Island (Mission station)	Population: 4 whites 20 Fuegians	—
Port Howard. .	Population 42	Seven houses at the settlement; five detached.

At all the stations and houses the water-supply is reported as 'ample, and, with few exceptions, very good'.

EDUCATION

1846. In 1846 the room used as a church served during the week as the schoolroom. There were then fourteen scholars, five of whom were boys. The first schoolmaster was William B. Brown, who received an annual grant of £20 from Government, while the parents of the children contributed between them the sum of £18 4s.

1849. In 1848 William Williams was schoolmaster, and the number of children had increased to twenty-eight—fourteen boys and fourteen girls. Williams was succeeded in 1850 by James Hockin, one of the Chelsea pensioners who came out to the Falklands in 1849. Two years later his place was taken by Robert Hardy, whose salary as schoolmaster was increased to £44, of which £26 came from the children's parents.

By 1853 the number of scholars had increased to forty-seven, of whom it was reported: 'Twenty can read and write.'

Two years later a small private school was opened at Stanley by a Mrs. Montague 'for young female scholars' who numbered seven. By 1861 the children attending the Government school numbered 117. The schoolmaster was then George A. Clarke, assisted by his wife; Clarke also held evening classes.

No provision was made for the children of the shepherds and other men employed by the Falkland Islands Company at Darwin, &c., and for whom in 1870 Governor Callaghan recommended the appointment of a travelling schoolmaster. His recommendation was acted on a few years later, when the Falkland Islands Company built a school at Darwin and supported a schoolmaster.

By 1880 there were three schools in the settlement—the primary and infant schools in Stanley, supported by the Government, and a primary school at Darwin supported by the Falkland Islands Company for the children of their employees.

For the children of the settlers on West Falkland and outlying districts of East Falkland no provision was made.

In 1885 the Rev. Lowther E. Brandon reported that the Government day-schools in Stanley were well attended, and the teaching regular and thorough. In the outlying camps and islands education was in a very backward condition. Mr. Brandon added, 'I know of many cases in which the children have grown up utterly unable to read the simplest book or to write their own names.' Two years later he again drew attention to the fact that nothing had been done by the Government or the lessees of Crown-lands for the children scattered throughout the islands—the one exception being the school at Darwin established by the Falkland Islands Company. Many children even in Stanley never entered a school; and he strongly urged that education should be made compulsory. Matters improved in Stanley. In 1889 the Roman Catholic priest, the Rev. P. J. Diamond, opened a school in the town, and another private school was opened two years later. But nothing was done for the children of West Falkland, of whom the Assistant Colonial Surgeon stationed at Fox Bay reported in 1892:

'No improvement has occurred in the general health of the children; and the majority would be all the better for some attempt at physical and mental culture. . . .'

It was not until 1896 that the appointment by the Government of two itinerant schoolmasters for the West Falklands became an accomplished fact. A few years later the Falkland Islands Company also employed two camp teachers.

In 1909 a new Education Ordinance came into force, making provision for the employment of pupil-teachers and raising the school age to fourteen. The travelling schoolmasters continued to carry on their difficult work with satisfactory results where the co-operation of the parents was obtainable. At the end of 1919 four additional travelling teachers arrived at the colony, two working in East Falkland and three in the West Falklands.

As yet the education provided in the colony is purely elementary, although in 1922 the Government schoolmaster submitted, for consideration, a scheme for increasing the facilities for elementary education in the colony generally and for providing at the Government school a two years' course of further education beyond the elementary stage.

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[1] To be abbreviated hereafter into *Ann. Mag. Nat. Hist.*

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Manuscript

Add. 38076, E. 12. (Chart of East Falkland with plan of Baye d'Acaron et Habitation du Fort St. Louis.) n. d. [18th cent.]

Plano del Puerto Egmont, en las Islas Maluinas.[1] Levantado por las Corvetas de la Marina Rl. *Descubierta* y *Atrevida*, 1789.

Printed

A chart of Hawkins's Maidenland, discovered by Sir Richard Hawkins in 1574 [*sic*], and Falkland Sound, so-called by Captain J. Strong . . . who sailed through it in 1689. *I. Noüal, sculp.* [1720 ?]

Carte du Détroit de Magellan et des Isles Malouines . . . Par le Sr. Robert de Vaugondy. (In *Histoire des Navigations aux terres australes*, vol. ii, p. 514. 1756.)

Pernety (A. J.). Histoire d'un Voyage aux Isles Malouines fait en 1763 et 1764. *Paris*, 1770. (Vol. ii, plates viii, ix,[2] xi, and xii.)

A Draught of Falkland's Islands. *C. Bowles*, 1770.[3]

Jefferys (T.). Hawkins's Maiden-Land; called afterwards Falkland's Islands . . . [1770 ?]

Carta Esférica de las Costas de America Meridional desde el Paralelo de 36° 30′ de Latitud S. hasta el Cabo de Hornos. Levantada de orden del Rey en 1789, '90, '94 . . . (with the Islas Maluinas). 1798.

Chart of the Faulkland Islands, as surveyed by Capt. Ch. H. Barnard. Engraved by T. R. Whitney. (In *A Narrative of the sufferings of Captain C. H. Barnard. . . .*) *New York*, 1829.

Edgar (T.). Chart of West Falkland, from an actual survey by Lieutenant Tho. Edgar of the Royal Navy. *Aaron Arrowsmith*, 1831.

Carta esférica de una parte de la costa oriental Patagónica . . . con una parte de las Islas Malzinas ó Falkland. . . . *Madrid*, 1862.[4]

[1] In the Library of the Royal Geographical Society, No. 355.
[2] See illustration facing p. 42.
[3] See p. 46.
[4] Part of the West Falklands only, including the Jason, Beaver, New, and Weddell Islands, named respectively Islas de los Salvages, San Rafael, San Felipe and San José.

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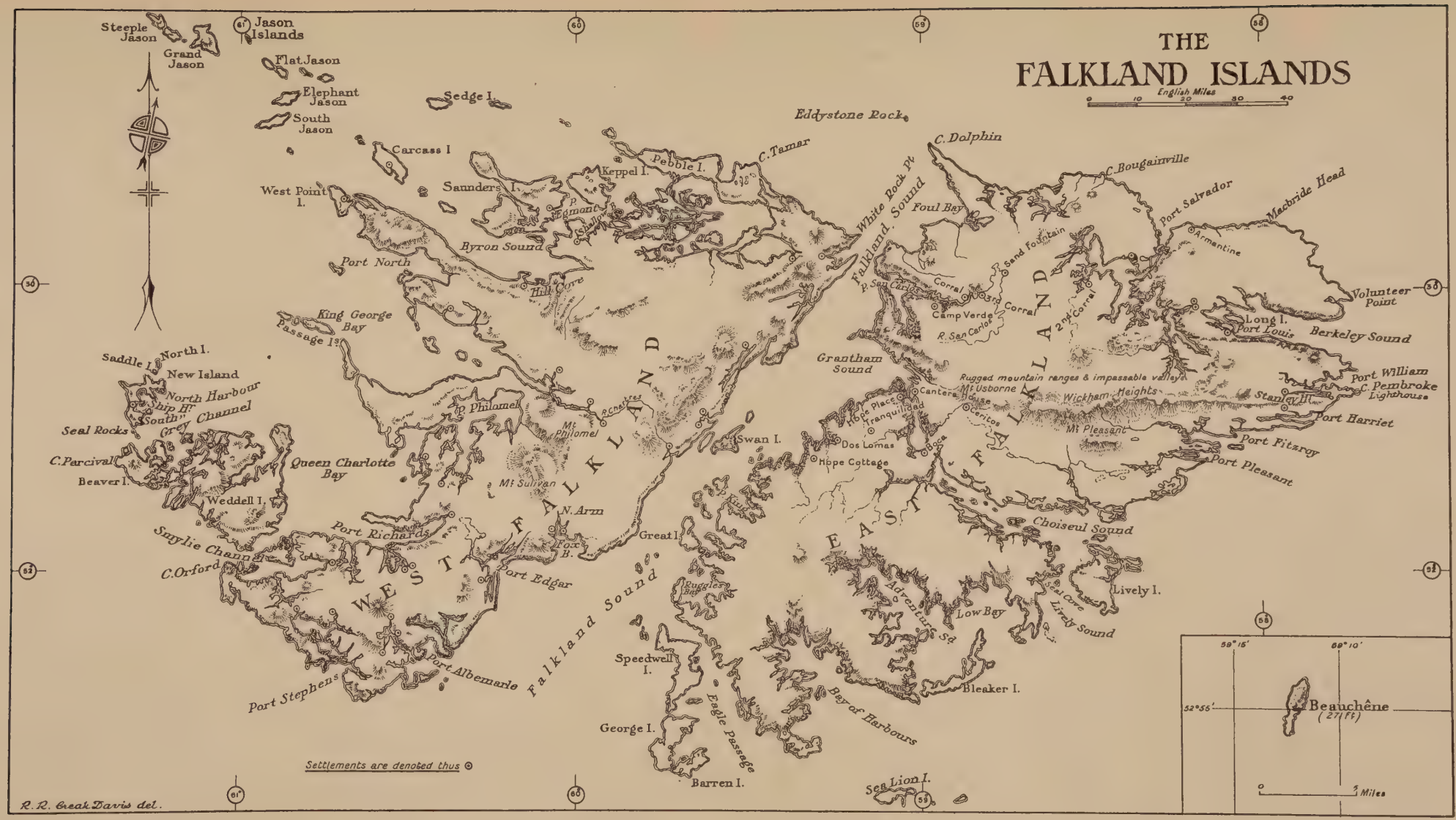
THE
FALKLAND ISLANDS
English Miles
0 10 20 30 40
Steeple Jason
Grand Jason
Jason Islands
Flat Jason
Elephant Jason
South Jason
Sedge I.
Carcass I
West Point I.
Saunders I.
Keppel I.
Pebble I.
C. Tamar
Eddystone Rock
C. Dolphin
C. Bougainville
Port Salvador
Macbride Head
Armantine
Volunteer Point
Long I.
Port Louis
Berkeley Sound
Port William
C. Pembroke Lighthouse
Stanley Hl.
Port Harriet
Port Fitzroy
Port Pleasant
Port Albemarle
Port Stephens
Port Richards
Port Edgar
Fox B.
N. Arm
Mt Sulivan
Mt Philomel
P. Philomel
Queen Charlotte Bay
Weddell I.
Smylie Channel
C. Orford
Seal Rocks
C. Parcival
Beaver I.
North I.
Saddle I.
New Island
North Harbour
Ship Hr.
South
Grey Channel
King George Bay
Passage Is.
Port North
Byron Sound
Hill Cove
P. Egmont
Shallow
White Rock Pt.
Falkland Sound
Foul Bay
Sand Fountain
Corral
3rd Corral
2nd Corral
Camp Verde
R. San Carlos
P. San Carlos
Grantham Sound
Rugged mountain ranges & impassable valleys
Mt Usborne
Wickham Heights
Mt Pleasant
Cantera House
Ceritos
Hope Place
Tranquilidad
Dos Lomas
Hope Cottage
Boca
Swan I.
Great I.
Ruggles Bay
Speedwell I.
George I.
Barren I.
Eagle Passage
Bay of Harbours
Adventure Sd.
Low Bay
Bleaker I.
Choiseul Sound
Lively I.
Seal Cove
Lively Sound
Sea Lion I.
WEST FALKLAND
EAST FALKLAND
Settlements are denoted thus
R. R. Creak Davis del.
59°15'
59°10'
52°55'
Beauchêne
(271 ft)
0 5 Miles

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